

WEEK
AGO

YEAR
AGO

BUSINESS WEEK



For joint action: George and Connally offer Hull (center) the aid of a new Senate committee on peace problems.

START
OF WAR
1939

PUBLISHED BY THE MCGRAW-HILL PUBLISHING COMPANY

UNIT OF RICH
LIBRARY
ABOR RICH

How the war was predicted—and decided —by machine tools

HISTORY may be written by politicians; it is determined by machine tools. Every step of this war was first made plain by governments in their machine tool orders.

1919—France and Belgium decided they had enough machine tools—they could coast along on those bought for the recent war. So orders fell off, and production fell as those war-time machines became older, more obsolete.

1933—Germany bought and built machine tools in quantity, soon passed France and Belgium in arsenal production.

1935—England, seeing what was happening, began to expand its machine tool orders.

1938—France finally became worried; by 1939 was placing frantic orders—but it was too late.

1939—Warner & Swasey on its own initiative began enlarging its plant and increasing production of turret lathes, to take care of the need they could see coming.

1940—England had been buying; now when France fell, took over all French unfilled orders as additions.

1940—American industry began buying machine tools to get itself ready for the war production it could see coming.

1942—Germany, thinking they could see an early victory, reduced production of machine tools so their factories could be used for direct production of planes and guns.

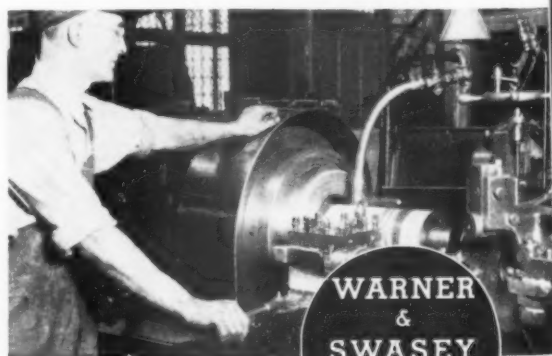
1943—This drying up of the supply of machine tools

began to show in Germany's volume of war production

1943—Warner & Swasey had increased its production to *10 times* the pre-war average, and had by now delivered in 3 years as many turret lathes as they had expected to build in the 20 years of 1939 to 1959. These turret lathes with other machine tools by other private manufacturers had tooled up America, and the resultant flood of war material was already passing the 10-year head start of Germany and the 20-year head start of Japan.

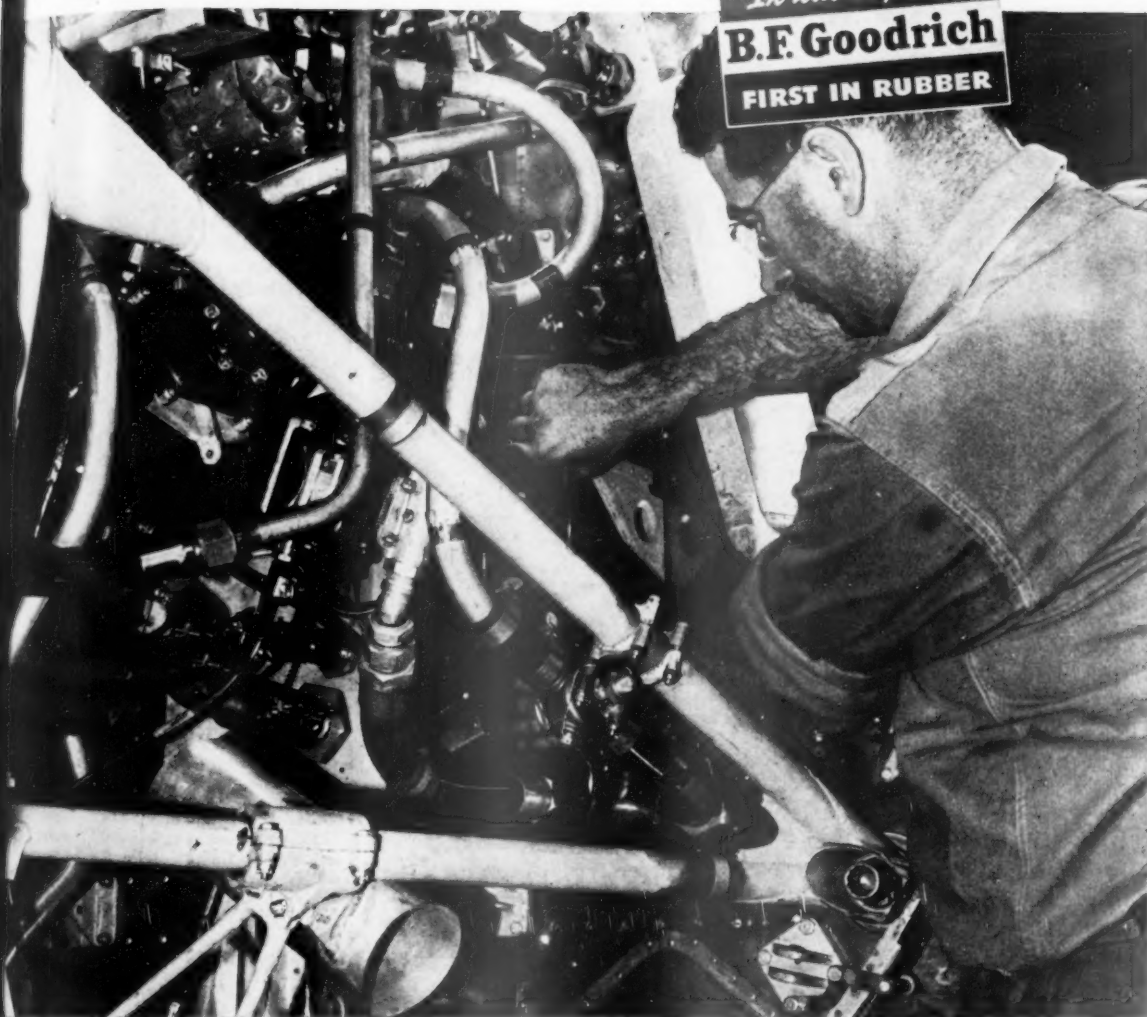
1944—The machine tool industry of America is not making the mistake Germany made. Here we are continuing enough production to keep American industry at peak efficiency, and using the rest of our expanded facilities for production of other vital war equipment.

194X—The nation with the most machine tools will win, for this is a war of machines as well as courage. And America has the most of both.



YOU CAN TURN IT BETTER, FASTER, FOR LESS...WITH A WARNER & SWASEY

In war or peace
B.F. Goodrich
FIRST IN RUBBER



Streams of oil make muscles for airplanes

typical example of B. F. Goodrich development in rubber

SOME airplanes are so big it takes hundreds of pounds of pressure to move the wing flaps, landing gear and brakes. It's done by hydraulic systems, which the power flows through streams of oil in pipe and hose. But if the hose is shot or damaged, the control won't work and men's lives may be endangered. Attaching couplings to new hoses took giant presses, and they can't be done on every jungle airport. Then, new couplings were developed which could be attached in the field. The old couplings wouldn't work. The

rubber in the hose would stretch or "flow" when squeezed between the parts of the coupling — then sudden pressure in the hose would loosen the coupling.

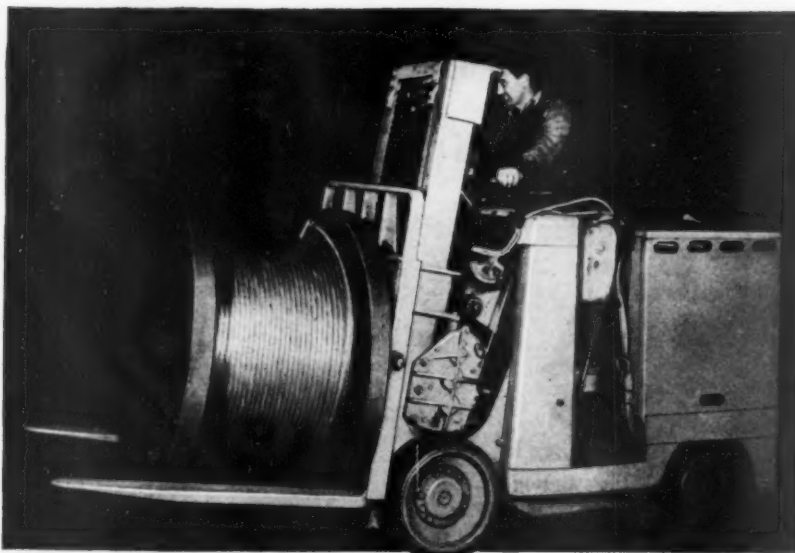
B. F. Goodrich engineers were asked for a hose to make these couplings practical. They designed a hose that had no layers of rubber outside or between the cord layers. Instead they forced the protecting rubber down into the fibers of the cord as it was braided around the inner tube. There was no free rubber to "flow" — the jaws of

the coupling bit into hard rubberized cords only, and held.

This new hose was the first cotton braided hose ever made that would stand the high pressures — as strong as wire braided hose formerly used, and much lighter. It's already on thousands of planes — another case where a B. F. Goodrich development has made some other development practical. *The B. F. Goodrich Co., Industrial Products Division, Akron, O.*

B.F. Goodrich
RUBBER and SYNTHETIC products

STOP AND GO



Modern, center-control fork trucks handle palletized unit loads; can also pick up and carry many types of loads without the use of any kind of dunnage. With batteries exchanged once or twice a day, they operate 24 hours a day with maximum dependability. Articles describing modern handling methods appear regularly in **STORAGE BATTERY POWER**. Write for sample copy if you do not already receive it.

In replacing a loaded skid box with an empty beside a machine, an industrial truck will make an average of approximately 14 moves forward, backward, up and down. A battery industrial truck has a natural advantage in this kind of stop-and-go service because it gets the necessary surges of power instantly from its battery, yet consumes no power during the stops. Thus it is not only economical of power, but the electricity used for charging its batteries is low-cost power.

Its electric-motor drive operates quietly, without vibration, and thus with well-nigh negligible repair requirements.



With batteries exchanged two or three times per 24 hour day, it is continuously supplied with power and, since one battery is charged while the other works, the truck need not stop work for servicing of its power unit.

For 24 hour-a-day material-handling work, therefore, a battery industrial truck is an inherently dependable and economical machine, especially when powered by Edison Alkaline batteries. With steel cell construction, a solution that is a natural preservative of steel, and a fool-proof electrochemical principle of operation, they are the longest-lived, most durable, and most trouble-free of all types of batteries. **Edison Storage Battery Division of Thomas A. Edison, Inc., West Orange, New Jersey.**

Edison
ALKALINE BATTERIES

BUSINESS WEEK

WHERE TO FIND IT

Canada
Figures of the Week
Finance
General News
Labor
Marketing
The Markets
New Products
The Outlook
Production
The Trading Post
The Trend
The War and Business Abroad
War Business Checklist
Washington Bulletin

THE PICTURES

Cover—Acme; 15—Press Assn.; 17—Acme; 26—Press Assn.; 34—Int. News; 46—Press Assn.; 48—Acme; 64 (lower)—World; 94, 102, 104—Acme.

THE STAFF

Publisher, Willard Chevalier • **Manager,** Montgomery • **Editor,** Ralph Smith • **Managing Editor,** Louis Engel • **Assistant Managing Editor,** Clark R. Pace • **News Editors,** Henry R. Lamb, Richard Lamb, Harold S. LaPolt, Raymond Dodd (Illustration).

Foreign, John F. Chapman • **Production,** W. Dodge • **Law,** J. A. Gerardi • **Finance,** McK. Gillingham • **Marketing,** Phyllis W. (Washington) • **Industry,** Clarence Judd • **Economics,** Sanford S. Parker • **Labor,** M. Pitzele • **Washington,** Irvin D. Foos, John Cobbs, Stuart Hamilton.

Editorial Assistants, Brownlee Haydon (Assistant Foreign Editor), John Hoffman, C. A. Lamb, Richard M. Machol, M. J. Montgomery, Mary Price, Arthur Richter, Margaret Timman, Doris I. White • **Statistician,** Alice M. Librarian, Ruth Wall.

Editorial Bureaus—Chicago, Arthur Van Vingen, Mary Richards • Detroit, Stanley Brams • San Francisco, McGraw-Hill Bureau • Washington, McGraw-Hill Bureau. Staff correspondents throughout the United States, and Canada, Latin America, Great Britain, U.S.S.R.

District Managers—Atlanta, R. C. Maubach • Boston, Nelson Bond • Chicago, Arthur C. Wardine, R. N. Whittington • Cleveland, Kenneth C. Warner • Detroit, C. W. Cranford • Los Angeles, R. N. Phelan • New York, H. Choate, J. R. Hayes, J. H. Stevenson • Philadelphia, H. C. Sturm • Pittsburgh, Gene Furge • San Francisco, J. W. Otterson • St. Louis, G. G. Sears.

BUSINESS WEEK • APRIL 29 • NUMBER 1 (with which is combined The Annalist and Magazine of Business). Published weekly by McGraw-Hill Publishing Company, Inc., James H. McGraw, Founder and Honorary Chairman, PUBLICATION OFFICE 99-125 NORTH BROADWAY ALBANY, N. Y. EDITORIAL AND EXECUTIVE OFFICES 330 WEST 42ND ST., NEW YORK 18, N. Y. James H. McGraw, President; Howard Ehrlich, Executive Vice-President for Business Operations; John Abbink, Executive Vice-President for Editorial Operations; Curtis W. McGraw, Treasurer; J. A. Gerardi, Secretary. Allow ten days for change of address. About subscriptions address J. E. Blackburn, Jr., Director of Circulation, Business Week, 330 West 42nd St., New York 18, N. Y.

Subscription rates—United States, Mexico, Central and South American countries \$5.00 a year; Canada \$6.00 for a year. Entered as second-class matter December 4, 1936 at the Post Office at Albany, N. Y., under the Act of March 3, 1879. Postage guaranteed. Printed in U. S. A. Copyright 1944 by the McGraw-Hill Publishing Company, Inc.

Nelson Faces Showdown

Donald M. Nelson is determined that WPB shall present a united front. He apparently is further determined that there shall be no doubt as to who is in charge of war and civilian production policies.

Nelson's stated policy with respect to civilian production—both now and during the reconversion period—is that it will be kept at the highest level compatible with effective prosecution of the war; that decisions affecting it shall be made in the public interest, rather than in the interest of any given industry, when the two conflict; and that small business shall be given preferential treatment.

Policies vs. Practices

For some time a conflict between Nelson's policy and many WPB practices has been evident. The conflict came into the open during Nelson's recent absence from Washington. Publication of a WPB memorandum which would have frozen civilian goods production in Group I and II labor areas brought hot protests from Congress and from some parts of WPB itself (BW—Apr. 22'44, p. 5).

The memorandum has been withdrawn. In testimony before the Senate Small Business Committee this week, Nelson described the policy it laid down as too "rigid." While Nelson did not retreat from his position that essential civilian production should receive the same treatment as war production, his explanation was designed to minimize the significance of the rift within WPB.

White House May Act

The rift in WPB does exist, and the strained relations between Nelson and WPB's executive vice-chairman, Charles L. Wilson, are approaching the breaking point. The White House evidently will have to step in.

Nelson's determination that his policies shall govern WPB's operations is seen in his emphatic statement that "I will continue to use my best judgment as to how the job should be done."

West of NWLB Wage Hike

Ken-Rad Lamp & Tube Corp.'s suit against the government, following the Army's takeover of its Owensboro (Ky.)

plant (BW—Apr. 22'44, p. 109), is not a direct challenge of President Roosevelt's power to seize war plants—that challenge seems to be the prerogative of Montgomery Ward (page 104)—but it may become one of the first legal tests of the National War Labor Board's authority to order wage increases on the ground that a manufacturer is paying substandard rates.

Ken-Rad charges that NWLB's order boosting the plant's minimum rate from 40¢ to 50¢ an hour is illegal because it was based on the assumption that 40¢ was substandard for the area.

NWLB, however, thinks that its au-

thority to define and correct substandard wages, which rests on the stabilization act of October, 1942, stands on solid ground.

Textile Problem Tackled

WPB's projected order, freezing the output of civilian clothing to its 1943 pattern (BW—Apr. 22'44, p. 5), is only one of many plans now afoot for licking the shortage of low-priced textiles. This has now become the subject of a full-dress conference between Economic Stabilization Director Fred M. Vinson,

Vice-Presidency Is Anybody's Bet

Although Gov. Earl Warren of California is said to have asked to be left off the Republican ticket, there still are weighty factors which may lead his party to draft him for the vice-presidential nomination.

The Californian looked like a certainty as Gov. Thomas E. Dewey's running mate before he was chosen keynoter of the Republican convention. Then word went around that he preferred to be attorney general or to remain as governor.

• **Westerner Preferred** — Because Dewey comes from the East, the vice-presidential nominee almost surely will be chosen from the Middle or Far West. The Republicans are worried most about the region west of the Rockies, especially California. They remember that Charles E. Hughes won New York in 1916 and lost the Presidency, because he lost California. Warren ousted the New Deal forces in the Golden State in 1942 with a ringing majority of 340,000 when the Democratic registration was 2,000,000 and the Republican only 1,000,000.

If party leaders decide, however, that Warren can swing California and nearby states without being on the ticket, the vice-presidential nomination might well go to one of the several contenders for the presidential nomination who now are overshadowed by Dewey.

These include Gov. John W. Bricker of Ohio; Lt. Com. Harold E. Stassen, former Governor of Minnesota; and Rep. Everett Dirksen of Illinois. Gov. Dwight Gris-

wold of Nebraska and Eric Johnston of Washington state, president of the U. S. Chamber of Commerce, also are considered possibilities.

• **Up to Roosevelt**—In the Democratic convention, President Roosevelt will be in a position to choose any running mate he wishes, but many politicians think he will give the convention a freer hand than usual—for the sake of party harmony. In that case, Vice-President Henry A. Wallace would not be the nominee again, but if Roosevelt does make a personal selection, Wallace can't be ruled out. His trip to China is regarded in some quarters as a move by Roosevelt to build the Vice-President up again.

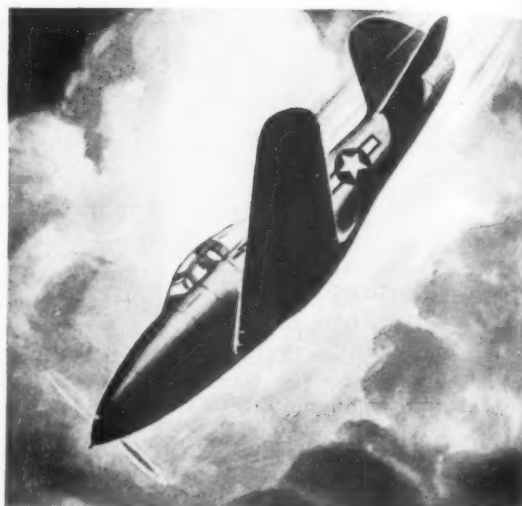
Trial balloons already have been sent up for businessmen giving wartime service to the Administration, such as, Edward R. Stettinius, Jr., the Under Secretary of State. Such mentions have excited little attention, but they are indicative of a new school of thought in the New Deal which holds that a touch of conservatism is needed on the ticket.

• **Other Possibilities**—Among other possibilities are Sen. Harry S. Truman of Missouri, who has won popular esteem as head of the Committee Investigating the War Production Program; House Speaker Sam Rayburn, a Texan, who has friends in all wings of the party; and Sen. Alben W. Barkley of Kentucky, a long-time New Dealer who blasted Roosevelt on the tax fight but who now appears to be snugly back in the Administration fold.

CAN YOU USE THIS SKILL AND EXPERIENCE?

AUTOMATIC CONTROL ENGINEERING

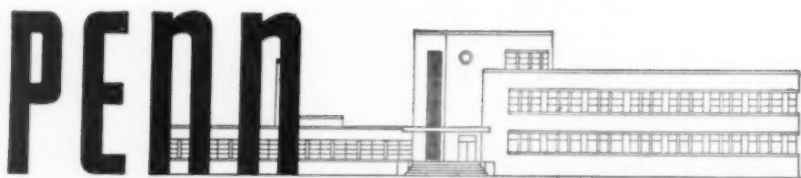
If you need automatic control for your present or post-war product, consider the control engineering skill and experience which Penn can offer. A recent striking example of that skill is the creation of an "exit flap control" for fighter planes. Penn engineers overcame difficulties of extreme vibration and sudden changes of atmospheric pressure, to produce a control which automatically keeps both the engine and the oil coolant at safe operating temperatures during the swift maneuvers of sky fighting.



PRECISION MANUFACTURING FACILITIES

Lighting and firing circuits for our Navy's 3-inch and 5-inch guns, and gun-firing solenoids for Navy planes, are among the vitally important products now manufactured by Penn. Naturally the armed services have first call on our skilled personnel, the machinery and equipment in our modern plant. However, without detriment to our war work, we are prepared to meet some needs for the precision manufacture of automatic controls.

If you have any problem involving automatic controls we invite you to consult our engineers now. *Penn Electric Switch Co., Gosben, Indiana.*



AUTOMATIC CONTROLS

FOR HEATING, REFRIGERATION, AIR CONDITIONING, ENGINES, PUMPS AND AIR COMPRESSORS

WPB Chairman Donald M. Nelson, Price Administrator Chester Bowles, and the War Relocation Authority's office and OPA are ready to take drastic measures to end the short-firm allocations for end-product, strict quality controls (page 88), and cents ceiling prices. WPB doesn't want to go this far.

Retain NLRB Rider

Despite C.I.O. opposition, Congress is certain to re-enact, for another year at least, the rider to the appropriation of the National Labor Relations Board which prohibits NLRB from taking any action in an unfair labor practice case involving a labor-management agreement that has been unchallenged for 90 days.

Originally nailed to the board's appropriation a year ago at the urging of the F.L. Metal Trades Dept., in an effort to prevent C.I.O. unions from raiding unions in Henry J. Kaiser's West Coast shipyards, the rider is bitterly opposed by both the C.I.O. and the board itself.

The House Appropriations Committee will hear both sides behind closed doors shortly, but members report an overwhelming majority favoring continuance of the provision for the duration of the war.

Labor Gives a Formula

Auto labor this week threw its weight behind unemployment as the ruling factor in the timing and extent of reconversion of the industry (BW—Apr. 22 '44, p. 15). In the discussion with WPB officials, the Automobile Labor Advisory Committee appointed by Donald Nelson—in which the C.I.O.'s United Auto Workers has six of eight members—argued for reconversion as and when warranted on the basis of need, facilities, manpower, and material.

This puts war requirements first, but puts out any idea that workers let go because of war production cutbacks shall sit idle until the war's end when all companies can resume production on an unlimited basis.

Ad Allowances to Stand

No matter what the rumors say, contract renegotiation boards do not plan to take a tougher stand on allowance of advertising expenses as an element in cost (BW—Jan. 8 '44, p. 78).

As in the past, they will follow the Internal Revenue Bureau's rule of admitting advertising expenses that seem reasonable and necessary in the light of the company's size, market, and pre-war practices.

This doesn't mean that the sky is the limit. Price adjustment boards feel that the advertising budgets of many firms in 1943 were about as big as their rule of reason could justify.

If these companies show another big jump in advertising expenditures this year, they may have to do some explaining to get the additions admitted as costs.

New Stockpile Plans

Congress and various administrative agencies are working at cross-purposes in their attempts to lay out a program for postwar stockpiling and price maintenance for strategic materials.

The Army and Navy have a plan, which would give them final say on the accumulation of stockpiles and disposal of strategic surpluses. The Dept.

of State and several other executive agencies are plugging for an interdepartmental board.

The Foreign Economic Administration has split with the State Dept. on this point and is pushing a plan of its own to give it broad powers to buy strategic materials abroad.

Latest report is that Lauchlin Currie, administrative assistant to the President on loan to FEA, is trying to persuade the White House to settle the question by executive order instead of maneuvering for legislation. This has put new steam behind the efforts of congressmen from the mining states to get legislation pegging postwar metals prices. They suspect the Administration of planning to set up its own organization and then to ask for approval, or, as one of them put it, "to have the baby and then legitimize it."

Time Out for Whimsey

Steel makers with a penchant for whimsey and numerology wouldn't be at all surprised if the National War

Foreign Policy Plan Begins to Function

Despite Republican skepticism about its effectiveness, Secretary Cordell Hull's foreign policy liaison plan began to function this week.

• **First Meeting**—Headed by Tom Connally, chairman of the Foreign Relations Committee, a bipartisan group of seven senators this week held its first meeting with the Secretary of State to survey specific schemes for Allied postwar collaboration. Included, besides Sen. Connally, were Walter F. George (see cover), chairman of the Committee on Postwar Economic Policy & Planning; Alben W. Barkley, majority leader; Guy M. Gillette (all Democrats); and Wallace H. White, Jr., acting minority leader; Arthur H. Vandenberg; Warren P. Austin (Republicans).

Sen. Robert M. LaFollette (Progressive), the eighth member, was unable to attend the first conference.

• **Skepticism Grows**—Specific peace plans now top the White House calendar, for whatever invasion date has been set, the war job now is in the hands of generals and admirals.

But, after four years of wholehearted collaboration with the Administration on war production schemes, Congress and industry have revealed a significant skepticism over the President's maneuverings in the field of foreign affairs.

Middle East oil; relief and rehabilitation for Europe; grandiose talk of a world credit bank—backed largely by U. S. gold; disposition of the world's biggest commercial fleet; political reconstitution of eastern Europe; aid for China; international regulation of cartels—on all these questions Congress and the public demand more information than has so far been revealed.

• **Loud Suspicions**—To meet this demand, Secretary Hull specifically asked the Senate to name the representative, bipartisan committee which met with him to discuss foreign policy this week. It will be surprising if it succeeds in the face of the loudly voiced suspicions of congressional Republicans who openly question whether anyone short of President Roosevelt knows all the essential facts about this country's wartime foreign policy commitments.



Be prudent...

be patriotic

PLAN PRINTING WITH YOUR PRINTER!

Paper is a vital material of war. When you must use paper, use it prudently, patriotically.

Your printer is the man who can help you do just that. Next time you're planning necessary business stationery, advertising folders and booklets—see him first. Your printer has the know-how that will help you save both paper and money.

And when ordering your business stationery and printed pieces, remember it's wise economy to specify Nekoosa Bond—the paper that's Pre-tested to give you all the qualities that mean your complete satisfaction.

**KEEP ON BUYING WAR BONDS...
AND KEEP THEM!**



One of the Pre-Tested Business Papers manufactured by the Nekoosa-Edwards Paper Company, Port Edwards, Wisconsin. Companion papers are JOHN EDWARDS BOND, NEKOOSA MIMEO BOND, NEKOOSA DUPLICATION BOND and NEKOOSA LEDGER.

Labor Board gives the steel workers a raise of 10.1¢ an hour, instead of the 17¢ they are asking. The steel companies' research is located at 101 Park Ave., New York City. Publicity stems from suite 101, Lafayette Hotel, Washington. The companies' economists work in suite 101A, their lawyers, in suite 101G, Wardman Park Hotel, Washington.

Foundry Bottleneck

WPB now regards foundries as the No. 1 bottleneck in both war and essential civilian production. With the hot weather coming on, the bottleneck is expected to get worse instead of better. WPB is trying to find a solution. To help, Defense Plant Corp. is building a couple of malleable foundries in surplus labor areas.

One of the most essential gray iron foundries is now turning out between 16 tons and 20 tons a day, against a capacity of 30 tons to 40 tons. On a recent Monday, only two of the foundry's six cranes were running.

Capital Gains (and Losses)

Army and Navy are still using and stockpiling as much nylon as they can lay their hands on, but rumors grow, in ever increasing volume and with ever increasing conviction, that production of nylon stockings will be resumed within two months, official denials notwithstanding.

The Navy has stopped work on converting the U.S.S. Lafayette (formerly the French liner Normandie) into a serviceable vessel. Too much manpower and materials were needed for the job. Work may be resumed after the war.

The censor has lifted the veil on many a new military airline since this war began, but not until this week was it revealed that since July, 1942, daily round trip freight and passenger flights have been made from Seattle to Attu, by the Navy.

—Business Week's
Washington Bureau

THE COVER

Important step toward cooperation between U. S. legislative and executive branches on problems of international peace is the eight-man committee made up of members of the Senate Foreign Relations Committee. Formed by Chairman Tom Connally at Secretary of State Cordell Hull's suggestion as part of the State Dept.'s vigorous new public relations program, the group is composed of four Democrats, three Republicans, and a Progressive (page 7).



For indicating torque

TO THE MAN in the street, "torque" is a curious, little-understood word. It means power applied to produce rotation or torsion.

The airplane pilot reads the gauge and the number of revolutions of his engine and he knows exactly how much of his available horsepower is hurling him along.

This is of vital importance when taking off with a near-capacity load.

The Ashcroft Torque Meter Gauge is a sensitive instrument guaranteed accurate within a fraction of one mark on the dial. The maintenance of this fine accuracy is due to design, material and workmanship—in one word—"quality."

For nearly a century Ashcroft Gauges have earned and kept their reputation for quality yet never in our long history have we made more or better gauges.

Stocked and sold by leading Distributors everywhere... When you order gauges, insist on ASHCROFT... Write for booklet.



ASHCROFT
Gauges

MANNING, MAXWELL & MOORE, INC.
BRIDGEPORT 2, CONNECTICUT

Makers of Ashcroft Gauges, Hancock Valves, Consolidated Safety and Relief Valves and "American" Industrial Instruments. Builders of "Show-Box" Cranes, "Budgit" and "Load Lifter" Hoists and other lifting specialties.

E OUTLOOK

ESS WEEK

29, 1944



Businessmen who want to hitch their planning to the victory timetable can do no better than go along with this week's statement of Adm. Ernest J. King:

"Granting that we are able to defeat Germany this year, which can happen . . . we are preparing to hurl the greatest array of military power ever assembled at the armed might of the Japanese Empire."

Our might in the Pacific now is not inconsiderable. Pictures released by the Navy on Tuesday, purporting to show twelve battleships and eight carriers in the Marshalls, don't tell the whole story by a long shot.

Suppose Germany is knocked out this year; how much longer for Japan? Best authorities warn: **The Nipponese are still powerful, militarily and industrially; their internal lines of supply are getting shorter, and our external feeders are constantly lengthening. It won't be easy.**

•
Now that the war is going so well that supply interruptions appear remote, stockpiling of once-critical materials is becoming less and less pressing.

Mercury production has been cut back by 30% to 40%.

Zinc is very comfortable, and **copper** isn't worrying production authorities much in spite of all the talk about the manpower situation.

Hard-boiled attitude of the Rubber Director's office is said by many to have "overinsured" the **alcohol** program, and the same is true on **bauxite** because the Army vastly overestimated the amounts of **aluminum** needed per plane.

Manganese supply is so comfortable that there is agitation (particularly among those interested in cornstarch supply) to divert ships used for its importation to transporting **corn** from the Argentine.

Tungsten purchases have been cut back.

Air transport can bridge any emergency in scarce **mica** (India) or **quartz crystals** (Brazil).

Chrome on hand will last better than a half year, and imports have been reduced, partly due to temporary shortage of ship space from Africa.

•
Sharp differences of opinion are emerging in high places over the postwar fate of accumulated stockpiles.

Freeze them; import critical materials after the war instead of impoverishing our own natural resources. That's the Nelson-Batt school of thought, and Interior Secretary Harold L. Ickes is getting aboard.

Others in WPB—interested as much in orderly markets as in conservation—want a law strictly regulating liquidation. Coincidentally, they insist on strict realism in all stockpiling from now on; fear of runoff already is impeding domestic output of metals and minerals.

The Reconstruction Finance Corp. isn't saying anything, but Washington expects Jesse Jones' boys to dump surpluses at the drop of the hat. Proprietors of RFC subsidiaries know their boss' zeal for winding up in the black on his operations.

And **James F. Byrnes**, more in the role of demobilizer than mobilizer, says no group of lawmakers can know the future well enough to legislate these stockpiles off the market. He's for orderly liquidation.

•
Elaborate efforts to reassure the drug industry on Army dumping still haven't allayed fears. Military holdings—drugs, medicines, dental supplies—are enormous by civilian standards; some stocks date back to the last war.

In response to queries, Treasury Procurement insists it hasn't been

THE OUTLOOK (Continued)

BUSINESS WEEK

APRIL 29, 1944

notified of any important Army surpluses. Drug people in WPB's Chemical Division say they haven't heard of any either, and add that they keep a mighty close eye on military orders which might represent overbuying.

To bar sale of old or inferior products, Food & Drug Administration experts will sample anything turned over to Treasury Procurement for sale to the public. **Army, meanwhile, is surveying the scope of possible foreign relief, Chinese needs, and Veterans Administration wants.**

●
Probably the most reassuring step on drug surpluses has come within WPB.

If and when Army has any large quantities for sale, it will, as usual, offer them to the customary government agencies. If none needs it, the supply ultimately will be turned over to Treasury Procurement. **But, and here's the new wrinkle, Procurement will call in WPB.**

Heretofore, a surplus reaching Procurement has been all ready for public sale. Now WPB aids in finding a market—at home or abroad.

●
Plans for sale of 364,450 lb. of mercuric chloride from Army surplus need be no problem to the drug industry. It goes by the same name as the corrosive sublimate of medicine, but it's not of medical grade.

A pure guess: Chemical Warfare may have had this poison tucked away.

●
Demand for combat aircraft still is next to insatiable, yet the industry is even now glimpsing some of its postwar problems.

This week, representatives of the airlines talked with the Surplus Property Administrator about one of the biggest potential problems—disposal of surplus planes, engines, parts. It's only the first of many meetings.

Aircraft manufacturers—whose contraction pains will be severe enough at best—don't want light craft such as trainers dumped on the civilian market at any price. And they don't want leftover Army transports to flood the airlines at the end of the war.

Main hope of the airlines is that Army will turn back, probably in June, some of the private ships taken over earlier in the war (page 22). The turn-back, however, will be of a few ships and not of all still in Army hands as had been reported in some newspaper accounts. Air mail will be the main beneficiary.

●
A very hush-hush WPB report on textiles concludes that 1944 supply will be up to 1943. Existing shortages—work clothes and gloves, infants' wear, low-cost women's and girls' dresses, men's and boys' underwear—are expected to persist. Doubters say of the report: "Done with mirrors."

●
When you hear talk of Congress' extending a measure until so-and-so long "after the cessation of hostilities," do you know what it means?

The fact is that **hostilities cease when the treaty of peace has been confirmed**—not when the last gun fires or when an armistice is signed. The last war didn't "cease" until 1921, by that definition.

This means, you may recall, that **farmers are guaranteed a floor under prices at 90% of parity until two years after we conclude a formal peace with both Germany and Japan.** Those who go on the theory, "Prosperous farmers, a prosperous nation," profess to see in that the best of all postwar cushions.

FIGURES OF THE WEEK

	\$ Latest Week	Preceding Week	Month Ago	6 Months Ago	Year Ago
THE INDEX (see chart below)	*241.4	†241.1	240.0	240.6	234.1
PRODUCTION					
Steel Ingot Operations (% of capacity).....	100.0	99.5	99.1	100.6	100.0
Production of Automobiles and Trucks.....	16,905	17,330	17,725	17,785	18,995
Engineering Const. Awards (Eng. News-Rec. 4-week daily av. in thousands)....	\$6,043	\$6,155	\$5,680	\$8,057	\$13,812
Electric Power Output (million kilowatt-hours).....	4,344	4,307	4,409	4,415	3,925
Crude Oil (daily average, 1,000 bbls.).....	4,427	4,432	4,385	4,410	3,913
Bituminous Coal (daily average, 1,000 tons).....	1,955	2,003	1,987	1,954	1,970
TRADE					
Miscellaneous and L.C.L. Carloadings (daily average, 1,000 cars).....	80	81	81	85	79
All Other Carloadings (daily average, 1,000 cars).....	54	51	51	67	51
Money in Circulation (Wednesday series, millions).....	\$21,334	\$21,295	\$20,934	\$19,019	\$16,500
Department Store Sales (change from same week of preceding year).....	-11%	+23%	+17%	+13%	+15%
Business Failures (Dun & Bradstreet, number).....	20	33	30	34	96
PRICES (Average for the week)					
Spot Commodity Index (Moody's, Dec. 31, 1931 = 100).....	249.8	249.8	251.1	247.4	246.7
Industrial Raw Materials (U. S. Bureau of Labor Statistics, Aug., 1939 = 100)...	162.9	163.0	163.2	160.5	159.6
Domestic Farm Products (U. S. Bureau of Labor Statistics, Aug., 1939 = 100)...	222.4	222.4	222.2	215.7	208.5
Finished Steel Composite (Steel, ton).....	\$56.73	\$56.73	\$56.73	\$56.73	\$56.73
Scrap Steel Composite (Iron Age, ton).....	\$19.17	\$19.17	\$19.17	\$19.17	\$19.17
Copper (electrolytic, Connecticut Valley, lb.).....	12.000¢	12.000¢	12.000¢	12.000¢	12.000¢
Wheat (No. 2, hard winter, Kansas City, bu.).....	\$1.64	\$1.64	\$1.66	\$1.53	\$1.38
Sugar (raw, delivered New York, lb.).....	3.74¢	3.74¢	3.74¢	3.74¢	3.74¢
Cotton (middling, ten designated markets, lb.).....	20.99¢	21.01¢	21.16¢	20.21¢	21.14¢
Wool Tops (New York, lb.).....	\$1.313	\$1.315	\$1.313	\$1.332	\$1.332
Rubber (ribbed smoked sheets, New York, lb.).....	22.50¢	22.50¢	22.50¢	22.50¢	22.50¢
FINANCE					
10 Stocks, Price Index (Standard & Poor's Corp.).....	93.3	94.3	95.8	94.5	91.2
Medium Grade Corporate Bond Yield (30 Baa issues, Moody's).....	3.67%	3.68%	3.70%	3.81%	3.96%
High Grade Corporate Bond Yield (30 Aaa issues, Moody's).....	2.73%	2.74%	2.74%	2.70%	2.75%
Call Loans Renewal Rate, N. Y. Stock Exchange (daily average).....	1.00%	1.00%	1.00%	1.00%	1.00%
Prime Commercial Paper, 4-to-6 months, N. Y. City (prevailing rate).....	$\frac{3}{8}$ - $\frac{1}{2}$ %	$\frac{3}{8}$ - $\frac{1}{2}$ %	$\frac{3}{8}$ - $\frac{1}{2}$ %	$\frac{3}{8}$ - $\frac{1}{2}$ %	$\frac{3}{8}$ - $\frac{1}{2}$ %
BANKING (Millions of dollars)					
Demand Deposits Adjusted, reporting member banks.....	34,248	33,766	32,860	31,366	30,313
Total Loans and Investments, reporting member banks.....	51,453	51,596	52,401	53,477	44,127
Commercial and Agricultural Loans, reporting member banks.....	6,151	6,188	6,370	6,361	5,805
Securities Loans, reporting member banks.....	1,961	2,089	2,446	2,857	1,969
U. S. Gov't and Gov't Guaranteed Obligations Held, reporting member banks...	38,110	38,089	38,329	38,682	30,487
Other Securities Held, reporting member banks.....	2,885	2,887	2,897	2,914	3,226
Excess Reserves, all member banks (Wednesday series).....	900	1,000	900	1,407	2,293
Total Federal Reserve Credit Outstanding (Wednesday series).....	13,330	13,106	12,722	9,380	6,715

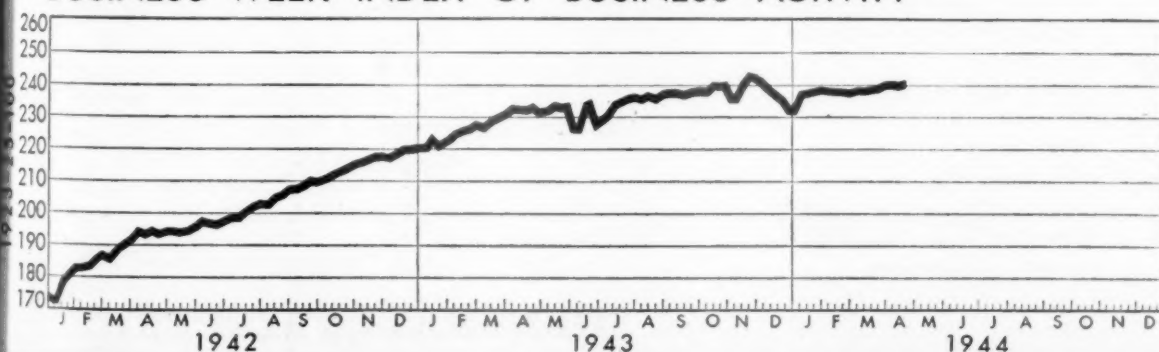
Preliminary, week ended April 22nd.

† Revised.

Ceiling fixed by government.

§ Date for "Latest Week" on each series on request.

BUSINESS WEEK INDEX OF BUSINESS ACTIVITY





A NEW PLASTIC*

* 1421 CAST ROD

FORM AVAILABLE
Cast Rod Maximum length—10'

PHYSICAL PROPERTIES

COLOR—pale yellow to water white

MACHINABILITY—good, similar to brass

SPECIFIC GRAVITY—1.04-1.06

IMPACT (Dynstat)—.07-.08 ft. lbs.

FLEXURAL STRENGTH—
(Dynstat) 7500-10,000 lbs./sq. in.

WATER ABSORPTION—
less than 0.1% in 24 hrs.

DIELECTRIC CONSTANT—2.4 to 2.5

POWER FACTOR—.0006-.0009

SOLVENT RESISTANCE—Generally insoluble in most solvents but swells in aromatic hydrocarbons.

The General Electric Plastics Divisions have developed a new material with unusual characteristics. This new plastic has the ability to withstand very high temperatures without melting. It has high dielectric strength, low power factor, and low dielectric constant. This material has been successfully used for applications in the radio industry where other plastic materials have proved unsatisfactory. For further information write section A-203, One Plastics Avenue, Pittsfield, Mass.

Hear the General Electric radio programs: "The G-E All-girl Orchestra" Sunday 10 P.M. EWT, NBC, "The World Today" news, every weekday 6:45 P.M. EWT, CBS.

GENERAL  ELECTRIC
BUY WAR BONDS

Wanted: A Firm Draft Policy

Civilian war agency leaders urge over-all plan including on drafting irreplaceable men over 30 in essential jobs, and tapping of manpower pool on farms to supply services.

Continuation of present haphazard policies can seriously impair America's war industrial power, in the opinion of a number of top civilian agency chiefs.

These officials, who must remain anonymous for the present, are exerting pressure on Selective Service and the armed services to establish a greater degree of certainty and order in the handling of the draft to relieve industrial managers of one of their most headaches.

Over-All Plan Urged—They would institute an over-all draft plan for the statements from military leaders as the War-Navy-Maritime appeal for national service legislation which provided that most of the 1,400,000 men needed by the armed services this year will be drawn from vital industries which must not only obtain replacements for the employees called to the armed services, but which must in many instances increase their working forces.

Creation of an over-all draft plan, with the assurance that no major change will be made in it for a specified period of time, would go a long way toward eliminating present draft uncertainty which has prevented most employers from doing more than hand-to-mouth personnel planning.

Essential Provisions—Such a plan, these civilian agency chiefs contend, should contain the following provisions: (1) Drafting from vital industries of men over 30 who cannot be replaced. (2) 4-F's or women must stop. Related public statements from the military indicate that they don't want men in this age group. Industry needs them, but has no assurance today that it will be allowed to keep them.

(2) Extreme care must be exercised in tapping the 26-to-30 manpower pool. Although industry is carrying on despite the drafting of the bulk of its trained men under 26, its continued ability to function cannot be guaranteed if the draft policy is applied to those in the 26 to 30 group. This group is shouldering an extra burden because of the departure of those under 26. Key management people, scientific personnel, and

highly skilled workers in this group must be protected.

(3) If the needs of the armed forces cannot be met by this program, then Selective Service must turn to the farms before coming back to industry for more men. The largest pool of men of the age required by the armed services—600,000 men under 26—is on the farms. Drafting of men on farms is restricted, but Selective Service hopes to marshal enough public opinion to force some of the deferred farm youth into the services.

Business Leaders "Unsold"—Meanwhile, the manpower picture was further confused this week by the armed services' attempt to "sell" national service legislation to the National Assn. of Manufacturers and the U. S. Chamber of Commerce.

More than 50 business leaders called

to Washington to "discuss" service legislation with Army, Navy, and Maritime Commission officials left "unsold" after being lectured by Secretary of War Henry L. Stimson, Secretary of the Navy Frank Knox, Rear Adm. Emory S. Land (chairman of the Maritime Commission), and Sen. Warren R. Austin of Vermont, and Rep. James Wadsworth of New York, coauthors of the Austin-Wadsworth national service bill.

Describing the event the N.A.M. News said:—"It was assumed that the visitors had been invited to a conference with service chiefs, but it was soon apparent that they had been called here as an audience and not for consultation."

Statistics Disputed—The joint military service statement on the needs of the armed forces was issued after the meeting, although it had not been presented to the group.

Government and private statisticians subsequently found numerous major statistical aberrations in the statement which had not been cleared with the Office of War Information or other government agencies.

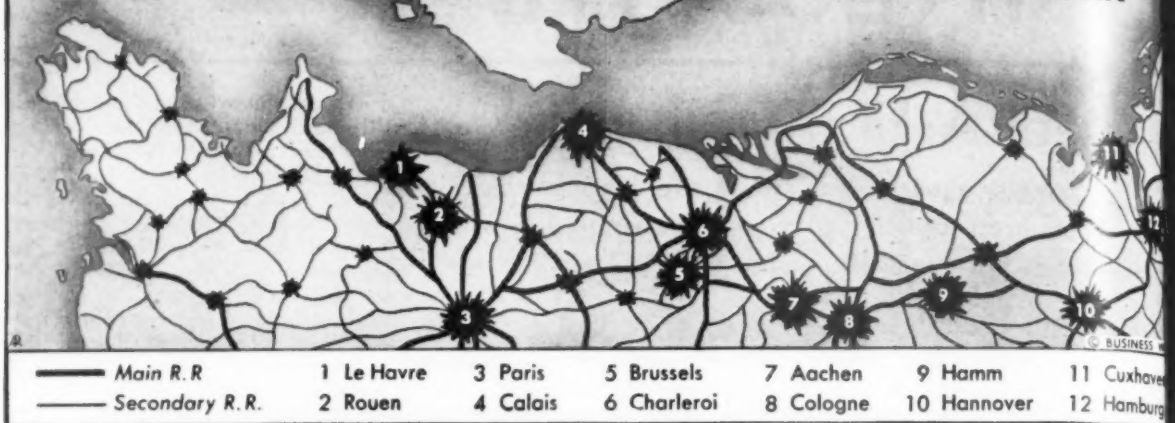
The statement made much of the need for 1,400,000 men, but said nothing



Washington officialdom is attempting hopefully to sweat out a new draft policy which will stick. With their heads together are three members of the War Manpower Commission—

Ralph Bard (left), Assistant Secretary of the Navy, Maj. Gen. Lewis B. Hershey (center), Director of Selective Service, and Robert P. Patterson, Under Secretary of War.

AID TO INVASION: WRECKING HITLER'S RAIL NETWORK



The pattern of Allied bombings across the Channel has shifted from vital factories and warehouses to airfields, hangars, and railroad targets. The aim is at least partial immobilization of the Luftwaffe and of Rommel's

Wehrmacht units in the critical area between Normandy and Denmark. During the past ten days, a dozen rail centers have been battered by precision bombings. Throughout this German defense area, planes have

lashed at switching points, viaducts, marshaling yards, other railroad bottlenecks. In one day, Allied locomotive-busters stopped 18 trains, and 150-a-month rate of locomotive wear has been bettered.

ing about the estimated 1,000,000 men who probably will be discharged from the services this year. Most will be able to take war jobs (page 46).

• **Error in Terms**—The statement also talked about 65 out of every 1,000 workers quitting their jobs in February, confusing the Bureau of Labor Statistics "separations" rate with its "quit" rate.

Actually, only 45 quit, while the remainder were either laid off, discharged, or inducted into military service.

The N.A.M. account of the meeting quoted Sen. Austin as accusing industry of "clasping hands with labor and the farmers to block service legislation." Rep. Wadsworth said, "You shrink away from it."

• **Marshall Unprepared**—Much was made of the fact that Chief of Staff Gen. George C. Marshall had nothing to say about national service at the meeting. According to the N.A.M., Marshall explained that he had only 45 minutes notice of the meeting and therefore had not time to prepare.

"This was taken by some of the industrialists as indicating that the fighting part of the Army had nothing to do with calling the meeting," the N.A.M. said.

Meanwhile, Selective Service hoped to untangle its part of the draft-manpower situation by collecting detailed figures on the number of men of each age in each draft classification as a basis for future planning. While the figures were being gathered, Maj. Gen. Lewis B. Hershey went off on a speaking tour.

In one speech, Hershey indicated that those 4-F's rejected for educational or mental reasons, or because of physical defects which may be corrected within a short period of time, would be re-examined. However, he held little hope of reclaiming any substantial number from this group. On Apr. 1, more than 3,830,000 were in 4-F.

• **Depends on Farms**—Tentative figures already available indicate that men in listed essential activities may not be called this year, although it is likely that some inductions over 30 will be authorized to keep the older men moving into essential jobs.

Much will depend on the efforts to draw men off the farms. Officials don't expect to make any inroads before the harvest season closes, but they will be satisfied to draw off 200,000 to 300,000 between Sept. 1 and Dec. 31.

• **1,100,000 Available**—Since the inter-agency deferment committee has only asked for the deferment of 136,000 men under 26 (BW-Jan.15'44,p88), Selective Service now hopes to secure 200,000 to 300,000 men from the under 26 group.

Each month, of the youths who turn 18, the services can expect to get 60,000. This would provide 500,000 by the end of the year. An additional 200,000 men may be secured from men aged 26 to 30 already in 1-A and awaiting induction after the draft of those under 26 is completed.

This breakdown indicates that 1,100,000 may be available this year without cutting too keenly into those over 26.

Money Stage Set

Accord on principles of White plan for stabilization of currency paves way for parallel on knotty world problems.

Although the Treasury's plan for international currency stabilization just cleared its first big hurdle, it has a long, tough course ahead (BW-Apr.22'44,p29).

• **A Starting Point**—The consensus of 34 nations, announced by Secretary Henry Morgenthau, is seen as the starting point for formal negotiations. It is not in any way a binding agreement. And since it sticks to general principles, it does not represent a solution of any of the particular problems that stand in the way of international monetary cooperation.

The consensus is important, however, for two reasons: (1) It ends the period of exploratory conversation among experts and sets the stage for formal negotiations in which the warring nations will play for keeps; (2) it determines for the time being at least the lines along which attempts to set currency stabilization machinery in motion will proceed.

• **World Fund Indorsed**—In their statement of principles, the experts agreed "that the most practical method of assuring international monetary operation is through the establishment

an International Monetary Fund." is a real achievement for the Treasury, since it means that the experts have indorsed the general outline of the plan worked out by Harry D. White, Morgenthau's international monetary specialist.

Economist J. M. Keynes, speaking officially for the British, had proposed an international clearing union, holding no assets and operating through the offset of book credits. Bankers opposed to the creation of an international agency have been pushing the idea of stabilizing the pound-dollar ratio and letting other countries hitch on to this base. In its discussions with the experts, the Treasury has won out against both these proposals.

Significant Omissions—In other respects, the statement of the experts follows closely along the lines of the White plan, with some significant omissions. The International Monetary Fund would receive subscriptions from member countries—totaling about \$8,000,000,000 if all the United Nations and friendly neutrals joined, about 10,000,000,000 if the Axis eventually signed up.

Subscriptions would be paid partly in gold, partly in the currencies of member countries. Each currency would have a fixed value in terms of gold, which could be altered only after consultation.

How Fund Works—Once the fund is established, member countries would request it to sell them any currency they needed to make international payments resulting from ordinary commercial transactions.

For example, if the supply of dollars in the British market dried up, England could buy dollars from the fund and use them to pay American creditors. This privilege would be subject to certain limits designed to keep members from using the fund to finance a chronic unbalance of trade. Countries faced with an extraordinary capital transfer would not be allowed to use the resources of the fund in order to meet it, but ordinary capital transactions would be treated like commercial deals.

Policy Enforcement—On the touchy question of bringing pressure to bear on the member countries, the statement of the experts has left many significant blanks.

It specifies that countries drawing too heavily on the resources of the fund can be denied the privilege of buying currency they want. It also provides for an apportionment of scarce currencies in case the fund's holdings run low. Outside of that, it skips over the problems of inducing members to follow monetary and commercial poli-

cies that will make stabilization possible.

● **Restrictions**—Even as a statement of general principles, the consensus contains several restrictions and loopholes, inserted by wary nations with an eye to getting a seat near an emergency exit.

For example, "The operations on the fund's account will be limited to transactions for the purpose of supplying a member country on the member's initiative with another member's currency in exchange for its own currency or for gold." This would rule out the possibility that the fund would initiate buying and selling operations that were designed to influence exchange markets.

Also, "In particular, the fund shall not reject a requested change [in par value of a member's currency], necessary to restore equilibrium, because of the domestic social or political policies of the country applying for a change." At this stage, no one will guess how much that tent might cover.

● **Voting Power**—On the distribution of voting power, the experts say only that it shall be "closely related" to the size of the subscriptions.

Loopholes and technical difficulties are only secondary obstacles, however. The biggest hitch at this time is the fact that the principles accepted by the experts must be sold to the governments they represent if any stabilization plan is to be adopted.

● **Conference Planned**—Secretary Morgenthau, who presented the plan to

Congress just before it was announced, said he considered the reaction good enough to warrant calling an international conference.

Several congressmen who shied away when the Treasury sprang its first plan on them a year ago have warmed up since then, but Congress as a whole still is wary. With elections coming up, many congressmen would like to steer clear of the whole subject until they can find out where their constituents stand.

Tax Streamlined

Some pay more, others less, but Ways & Means feels that at least it has a bill which will please almost everybody.

Members of the House Ways & Means Committee were in a happy frame of mind this week as they presented Congress with their version of the Revenue Act of 1944—the tax simplification bill. For once, the committee felt that it had brought out a tax bill that everyone liked.

● **For Some, a Jolt**—Looking over the committee's work, most of the country's 50,000,000 taxpayers were inclined to agree. But to a few, the new bill was a nasty jolt.

In streamlining the procedure for collecting taxes, the committee was forced to back away from its original resolve



Discussing the Administration's scheme to stabilize international money, members of the Senate Foreign Relations and Banking & Currency committees appear pleased because it's over the preliminary hump.

Conferees, who heard a progress report on the plan last week, are (left to right) Sen. Robert Wagner, Secretary of Treasury Henry Morgenthau, Jr., and Sen. Theodore Green, Tom Connally, and Arthur Vandenberg.

to keep the incidence of the tax load unchanged. As a result, its bill would mean a substantial increase for some taxpayers and a decrease for others, even though the total revenue yield would remain about the same.

• **Reduced to a Memo**—Under the committee's plan, tax rates, withholding tables, and exemptions would be adjusted so that for some 30,000,000 wage earners making less than \$5,000 a year and receiving less than \$100 from other sources, payroll deductions would take care of the entire liability, except for the odd pennies. When the time came to make returns, these taxpayers would turn in a simple memorandum; the Bureau of Internal Revenue would figure out their exact balance and send them either a bill or a refund.

Taxpayers with income from investments and those making more than \$5,000 a year would continue to file advance estimates of their income and pay the amount not covered by withholding in quarterly instalments. For them, simplification would come primarily through shortening the forms and reducing the amount of information required.

• **Changes Proposed**—To achieve these results, the Ways & Means Committee proposes several sweeping changes in the present tax structure:

(1) It would abolish the Victory tax (3% of gross income above \$624 a year)

and the present normal tax (6% of net income) and substitute a new normal tax of 3% on net income above \$500 a year.

(2) It would change the personal exemptions to a flat \$500 a person (instead of the present \$500 for a single person and \$1,200 for a married couple with \$350 for each dependent). It would define a dependent as a close relative by blood or adoption who receives at least half of his support from the taxpayer. This is considerably more liberal than the present law which limits dependency claims to children who are under 18 and relatives who are too infirm to work.

(3) It would give the taxpayer the option of taking a "standard deduction" (10% of income for those making less than \$5,000 a year, a flat \$500 for others) instead of figuring out his exact contributions to charity, medical expenses, and the like.

(4) It would establish a new table of surtax rates beginning at 20% and running up to 91% in the top bracket.

• **Premium on Families**—The impact of these changes would vary from case to case, but the general effect would be to put a premium on big families. Married couples without children would have to shoulder a fairly substantial increase, while taxpayers with two or more children would find their taxes somewhat reduced.

Corn Stays Put

All government moves to open farm cribs, but OPA may try to pry grain loose with lower ceiling price on hogs.

Corn processors were still crying for raw material last week, and some have been forced to close. The industry has no way out unless Washington should get tough with the farmer-holders of corn, and it cherished meager hope of this in election year.

• **Plants Designated**—If candy, collard stiffening, and salad oil were the only products of corn wet-grinding, the war could go on without them. But the War Production Board computes that 40% of the total product goes to essential war industry uses, and that it takes 85% of last year's production rate to make this 40%.

Hence WPB allows 85% production by any plant designated eligible to buy government corn. A. E. Staley Mfg. Co. is the only one of the nine U. S. wet grinders that has not needed designation, and Anheuser-Busch was stricken from the list last week for exceeding its quota.

• **Requirements**—Total use of corn by wet millers comes to about 130,000,000 bu., or 4.3% of the 1943 crop.

Food uses 2,000,000,000 lb. of corn products. War Food Administration is now analyzing this tonnage to see how much of it is essential to war. The Army and Navy use 400,000,000 lb., principally for food. Lend-lease takes 300,000,000 lb., most of it starch.

Rough breakdown of essential industrial uses:

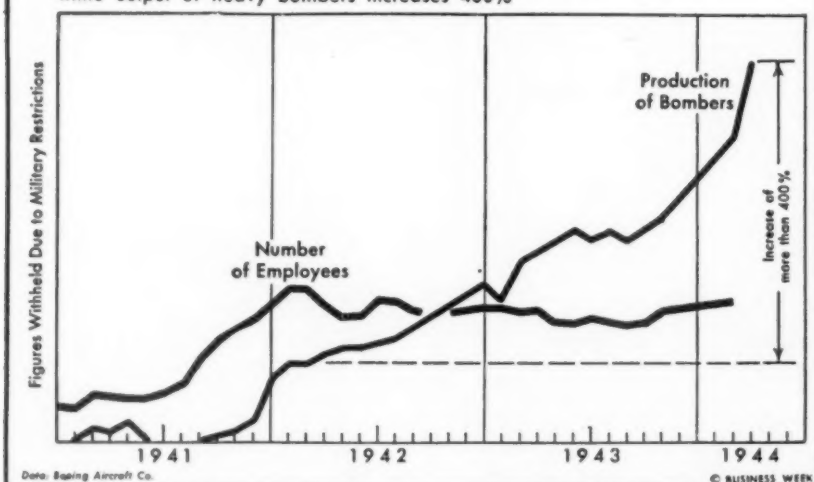
Industry	Million Lb.
Steel and aluminum foundries....	100
Aluminum flotation	10
Fiberboard containers	100
Cotton and rayon textiles	300
Paper products	200
Adhesives	100
Pharmaceutical, etc.	30-50
Explosives and chemicals	50

• **Farmers Sit Tight**—Farmers continued to sit on their corn after WFA's set-aside order (BW-Mar.25'44,p7) to country elevators had failed to overcome the mathematical truth that 60% of zero is still zero. Weekly receipts at principal markets became a trickle. Processors began scraping the bottom of their grain tanks.

The acute emergency finally produced WFA's order early this week freezing all corn on farms or in elevators in 125 counties in the five heart states of the Corn Belt. For 60 days, a farmer in the affected areas may sell only to

FLYING FORTRESS PRODUCTIVITY ZOOMS

Employment at Boeing's Seattle plant holds steady for two years while output of heavy bombers increases 400%



Indicative of improvements in production methods is the 400% up-sweep in Boeing's bomber deliveries from its Seattle plant during the past two years as compared with the plant's almost static level of manpower during the same period. By efficient use

of machinery and available manpower, Boeing's output for 1943 was 3.25 lb. of airframe per square foot of factory space a month. It then went on to break records last month with a bomber an hour throughout two main shifts of every working day.

Commodity Credit Corp., or to live-feeders—but sale to a feeder will be a price 5¢ below sale to CCC. This makes more easily detectable any corn above ceiling prices to trucks.

Boost Disguised—For swallow this bitter pill, WFA offers the farmer a sweet: "To avoid the necessity of interrupting their spring planting, WFA will provide shelling service on the farm and transportation to the elevator . . . at no cost to the farmer."

Not publicized, but contrived to help the farmer far more effectively, is an alternative offer. A farmer (but not a trucker) delivering shelled corn to the elevator gets 5¢ a bu. above ceiling. A nickel a bushel is a juicy premium. Common Corn Belt charge for custom shelling is 3¢ and for hauling 1½¢ a bu.

Agencies Collide—Federal agencies a few days ago collided head on in a red-hot meeting, with WPB and OPA. The meeting was headed by WFA.

Hard-boiled OPA-WPB would have wanted all corn, counted feed and live-stock on each farm, and requisitioned any corn above this year's needs. Tender-hearted, political-minded WFA plugged for boosting the ceiling liberally.

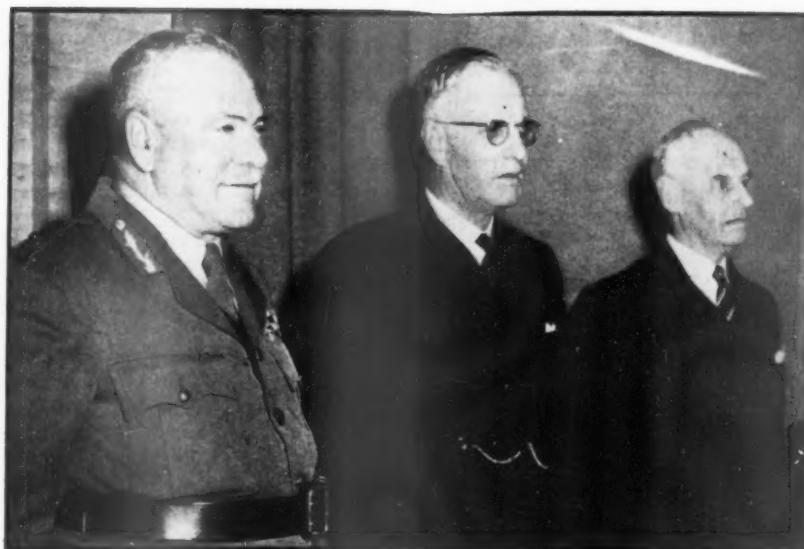
At midweek, an OPA order was imminent reducing the ceiling price on corn to 240 lb. and above from \$14.75 to \$14, obviously for the purpose of reducing the pressure on corn supply (N-*Apr. 8 '44*, p15).

WFA Confident—The compromise reached from Economic Stabilization Director Fred M. Vinson, besides the ceiling and the thinly disguised ceiling, instructs AAA committeemen to visit all farms to determine the amount of corn available and report the live-stock on each place.

WFA seems confident it can wheedle enough grain from farmers to meet essential industrial needs. Less optimistic agencies are counting more on the usefulness of the feed-and-livestock statistics after the current order fails to deplete the corn.

Binding Priorities—WPB is realistically proceeding with an order limiting quantities of corn products and controlling end-use. Corn grinders will get official preference list for filling orders for such uses as aluminum polish, coal-mine horse feeding, foundry sand binder, and penicillin over doll and civilian candy.

Meanwhile, WPB gives corn grinders a super-preference list of plants starving for urgent war-use corn products. There was only one name on it last Wednesday, but dozens of companies are teetering on the brink.



DOWN-UNDER DELEGATES

Headed for important conferences at Washington and London are (left to right) Australia's Gen. Sir Thomas Blamey, Prime Minister John Curtin, and Sir Frederick Shedden, Secretary of Defense Coordination. Their main objective is the meeting of British

commonwealth chiefs, but the American confab may prove more historic (page 111). Should the Curtin government subscribe to Washington's plans for international trade and collaboration, it would kill the hopes of a small but influential British group which would like to create a tight tariff-restricted Empire trading bloc.

Homes of Steel

U. S. Steel Corp. reported negotiating for Gunnison Housing, prefabricated manufacturer; it would tie Big Steel to public.

According to reports from Louisville, U. S. Steel Corp. is preparing for peacetime markets by expanding its interest in prefabricated homes.

Big Steel is negotiating for Gunnison Housing Corp., a pioneer and leader in the field, whose plant is at New Albany, Ind., just across the Ohio River from Louisville. It is understood that the deal is near the point of signature.

The deal is said to be a favorite project of Benjamin F. Fairless, president of U. S. Steel, who, it is reported, is advocating sales of the prefabs not only in the United States, but throughout the world to replace homes destroyed by bombing.

• **Steel Instead of Wood**—Acquisition of Gunnison by Big Steel would be of tremendous importance to the prefabricated industry. First, small-time prefabricated companies would be up against the competition of a new rival with no financial

problems, one that could go the limit on advertising and selling.

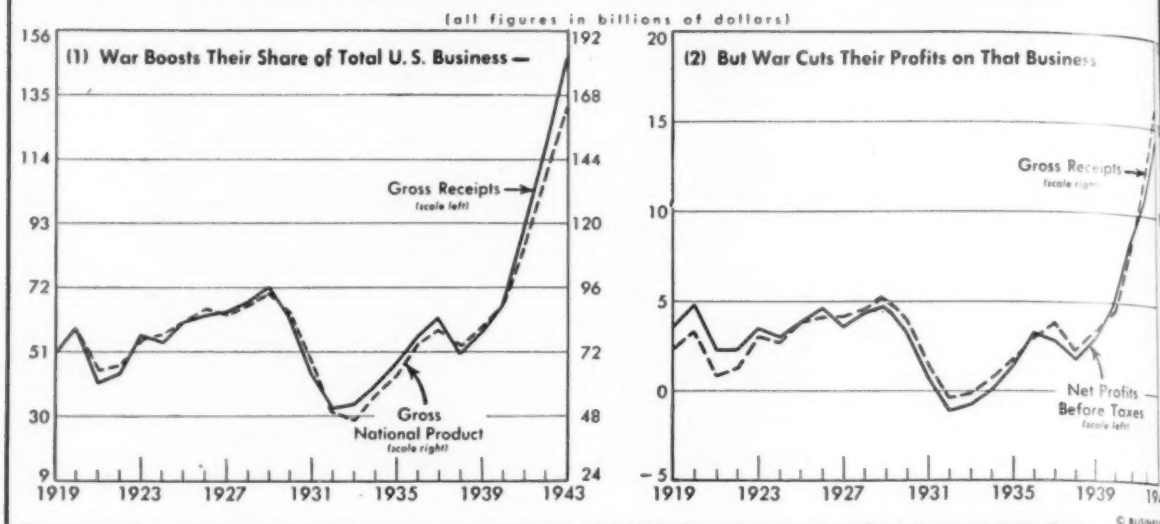
Gunnison houses have been made almost entirely of wood and plywood. A shift of ownership to the steel corporation would inevitably mean the use of that metal in numerous structural sections. This factor would provide a new impetus for sales promotion.

• **Effect on Policies**—Contrariwise, this new activity could have a profound effect on U. S. Steel management policies.

Critics in and out of the huge corporation have frequently deplored the fact that it has no direct contact with the consuming masses. Big Steel supplies its product to fabricators and intermediary processors who must cultivate the goodwill of the general public. A motorist, for example, knows that General Motors or Chrysler or Ford made the car he drives, but he doesn't know (or care) whether U. S. Steel furnished the original material. Nor does he know that Big Steel may have supplied the structural parts for the bridge he crosses or the framework of the apartment house where he lives.

• **Public Relations**—This aloofness originally gave the big corporation an attitude of reserve which made the public prone to believe what it read when the tub-thumpers drummed up their

MANUFACTURERS' BUSINESS—A 25-YEAR RECORD



In the past there has been close correlation between the gross receipts of manufacturing corporations and the gross national product (total value of all goods and services produced in the U.S.). It has been similarly close between corporate manufacturers' profits before taxes and their gross receipts. These relationships can be expressed in terms of precise mathematical equations, which have been used to determine the scales used on the charts. On the basis of these past relations,

manufacturers' sales in 1943 were more than ten billion dollars higher than their normal share of the gross national product, but their profits before taxes were some two billion dollars lower than normally would be realized from such a volume of sales (*The Trend*, page 120). All the figures involved have been corrected for profits or losses resulting from revaluing business inventories when prices rose or fell—in order to eliminate accidental variations, and so reveal

basic trends more clearly. Also, value of government services (payrolls and bond interest) has been subtracted from the gross national product—because, while this is usually very steady from year to year, it has been distorted during the war by payments to members of the armed forces. Finally, dividends paid among corporations have been excluded from the gross receipts figure as have been the profits before taxes of manufacturers.

drives against "big business." U. S. Steel was termed "the steel trust" or "a Morgan company."

There was a sweeping liberalization and reorganization of the company while Myron C. Taylor was chairman of the board. Later unions were recognized and an intelligent public relations program was instituted. But public prejudices die hard. The feeling has grown that Big Steel would have an easier job making friends if it had something to sell direct to the citizen.

• **Not the First Venture**—The Gunnison acquisition could well be the curtain raiser on such a new era. But it will not be Big Steel's first venture in prefabricated housing. The company's sales executives have long realized that a huge new market for their products could be opened up if more steel could be introduced into the building of homes. A step in this direction was made just before the war broke out.

Working with the Farm Security Administration, 14 units were built in the South by the Tennessee Coal, Iron &

Railroad Co., a U. S. Steel subsidiary (BW—Oct. 28 '39, p. 20). Cost per house ranged to \$2,284.

• **Proved in War**—With the spread of the war, Big Steel swung completely to defense production.

Its prefabricated steel houses have earned a place at the battle fronts because the panel design makes for high-speed construction, is ideal for shelter, shops, or storage wherever our forces move in. They have been especially valuable in the South Pacific where they have justified the engineers' claim that they would not be unduly hot under a tropical sun.

• **With Both Feet**—Whatever the future of the steel house, the Gunnison deal would put U. S. Steel in the home-selling business with both feet.

The New Albany concern was built by the persistence of Foster Gunnison. He is a member of the famous old Brooklyn (N. Y.) family which once owned the Brooklyn Daily Eagle. He began building prefabs back in the days of the depression.

• **Gunnison's Mistake**—Gunnison's house caused something of a sensation when it was unveiled in New York. The interior was a model of design, handy arrangements, and fascinating accessories.

However, he made the mistake of providing a purely functional exterior. The house was square, modernist flat, looked, as one woman said, "as if somebody had stepped on it."

Gunnison had too keen a sales sense to overlook opposition of this sort. He swiftly changed over to the accepted types.

He had built 5,000 prefabricated homes in this country before this war. In peacetime, prices ranged from \$2,800 to \$8,000. After Pearl Harbor Gunnison sold 5,000 defense units such as barracks, and homes in critical housing shortage areas. By production line methods, the New Albany plant turns out a prefabricated house every 25 minutes.

If the deal goes through, Gunnison will go with U. S. Steel to head up its prefabricated operations.

Works on Paper

But in actual practice, the law to facilitate importation of foreign farm workers fails. In Mexico, it backfires.

Two months ago when Congress enacted Public Law 229, designed to facilitate the importation of foreign workers, hopes were high that the device which had proved itself in tests last year might this year be fashioned into a really effective weapon for combating agricultural labor shortages, particularly in the Southwest.

To Restrict Piracy—Mexicans, Puerto Ricans (page 114), and Jamaicans on U. S. farms would be counted this year in the thousands instead of the hundreds. And the neat thing about the "solution" was that it would restrict labor piracy in the fields.

By the terms of Rep. Stephen Pace's amendment, the War Food Administration was forbidden to move any field hand out of the county in which he worked last year; that meant that the more efficient, higher-paying northern farmer wouldn't be able to gain any benefit at the expense of the southern agriculturist.

Beautiful on Paper—On paper, the law struck a beautiful balance, one that was even hailed as a further contribution to U. S.-Mexican relations.

But last month, the balance was rudely washed away. Disorderly workers, trying to force an entrance into the national stadium in Mexico City, where registration for enlistment and transportation to the U. S. was being arranged, provoked the police into counteraction. They opened the fire hydrants on the potential workers.

Newspapers in Mexico's capital city, hostile to the labor transfer scheme, needed nothing more than the incident of the Estadio Nacional to set them screaming.

Didn't Help Matters—A statement, credited to an unidentified U. S. military authority in Washington, to the effect that Mexico had failed to hold up its end as a United Nations partner didn't help matters any.

Neither did the announcement from Mexican government statisticians that their country could put five divisions in the field with less impact on its economy than shipping out the 115,000 workers who are slated to be sent north this year.

Soon the delegations were shuttling across the border. High Mexican officials went to California to look into the laboring conditions themselves; War

Food Administration trouble-shooters flew to Mexico from Washington, returning only this week.

Three-State Deal—When recruitment of Mexican nationals was first undertaken last year under the plan to help American farmers harvest their crops, heavy emphasis was placed on Michoacan, Jalisco, and Guanajuato, as being likely rural states from which to draw workers.

The Mexican government previously had tried to do something for the peons in these states by cutting up the haciendas and distributing the land to a new economic class, known as agrarians. They got land on condition that they work it, and they were specifically disqualified from leaving their land to go to the United States to work. But many found some official willing to certify for a fee that they were not agrarians.

The truth was that last year a significant percentage of the Mexicans not only were from the three above-named states, but also were agrarians. At least, there were enough of the agrarians mixed in with the peons, or poor farmers, who constituted the bulk of the group to cause a great uneasiness to spread through the California fields late

in the year when it came time for the new Mexican farmers to demonstrate to the Mexican state that they had spent the year farming their government grants of land. They wanted to hurry home.

Special Grant—Their plight caused President Avila Camacho to issue a special proclamation or easement specifically absolving Mexican agrarians at work in the United States from the obligation to farm their grants.

The agrarians have little interest in working the meager ground their government has granted them, but there have been distress signals from officials of the three states. In response, another Camacho decree was issued, providing that workers for the U. S. may not be taken from any of the three. But the men who have been to the U. S. and who know the relatively big money they can get here were not to be deterred by a decree.

Doomed to Failure—They entrain for Mexico City again, as usual, despite the ruling by the Mexican government that only workers living in the federal district would be enrolled in the capital. Others would be enlisted locally. But this plan, designed to forestall just the trouble which arose, was doomed to



WORK PARADE

Waving from Allis-Chalmers' new giant 38-ton Army tractor, Mayor John S. Martin invites his constituents to help LaPorte, Ind., shed a business stigma—its critical manpower shortage Group 1 rating. The parade

was a feature of a 30-day drive to muster the equivalent of 1,200 full-shift workers for the area's 15 war plants. The dual-engined tractor, included among exhibits in a show of community war products, is designed to haul 200-mm. and 240-mm. howitzers, their ammunition, and ten-man crews.

failure when the outlanders refused to keep out of the capital. And they have formed into occasionally riotous mobs seeking to force the government to rescind its ban on their going to the United States.

• **Can't Resist**—The lure of U. S. high wages—often highly exaggerated—keeps them coming. But it is true that, compared with the subsistence level of farm work in central Mexico, the U. S. income is princely. Many times more than those who have come to the U. S. have sought to come, and many have idled at home in consequence.

As the WFA investigators returned to Washington this week, one thing was certain. Whatever steps are taken to lower the barriers, speed is of the essence. It is only a matter of weeks, possibly days, before the harvest begins in Texas its steady move northward. And crops won't wait for men to make decisions.

Air Mail to Gain

Lack of pilots rated for passenger service gives Post Office Dept. first benefit from Army's return of 24 planes.

The U. S. Army's return of 24 requisitioned airplanes to the airlines soon—probably in June—by order of Secretary of War Henry L. Stimson, will greatly improve lagging air-mail service, but few additional nonpriority civilians will be able to get reservations because military personnel and civilian priorities will take the extra space.

• **Post Office Complains**—The Army will release the 24 planes mainly because Postmaster General Frank Walker and Roy Martin, his air-mail superintendent, after a country-wide tour of inspection

(BW—Apr. 8 '44, p7) were primed to tell Stimson that public muttering about delay in delivery of at least half of the air mail soon would blow out, perhaps in Congress.

In postoffice circles it was charged that the Air Forces had been week-ending with Douglas DC-3 airline planes or had been allowing them to stand idle, and would not like too much inquiry.

• **Victory for Walker**—The Post Office Dept. and the Army have been squabbling for a year over air transport equipment.

The Army wanted the postoffice to set up a priority system for war mail, or to tell the public to get along with less air-mail service by using more railway-mail service.

But Walker stuck by his guns, with charges up his sleeve of inefficient plane use by the Air Forces. The release of 24 planes by the Army looks like a victory for Walker.

• **Pilot Problem**—The chances are good that all 100 DC-3's still in the service of the Army will be returned in a matter of months. But putting 100 planes back into airline service, or even the preparation of the 24, to be handed back now, will take time.

However, pilot supply is improving as a result of the closing of the Civil Aeronautics Administration's war training service, releasing many flight instructors not eligible for military duty. But, pilots available with enough flying experience on other types of service have to be given a transition workout. Since many trips are flown with cargo only, and pilot rating for cargo flying is lower than the rating for flying passengers, air-mail service will be the first to benefit from the return of the 24 ships by the airlines.

• **Air-Mail Delays**—Airline operators say that while on an average half the air mail has been held over or transferred to trains, the average delay has not been overly long—relatively few long delays of important mail have done the damage.

Operators have been working a fast one lately—accepting a full load of mail from the postoffice an hour and a half ahead of the usual time, thereby heading off some preference passengers.

In October, 1941, the airlines had 357 planes, mostly DC-3's. In that Autumn they sold about 33 (many of them obsolescent) at high prices. In May, 1942, the Army, caught flat-footed without air transportation, requisitioned 158 of the remaining 324 in the airline system, leaving 166. Since then, Army has returned 34, raising the airlines' total to 200. Army will still have an even 100 when the order to return 24 is carried out.



Total taxes to be paid by the American people in the fiscal year ending June 30, 1944, will be by far the highest in history—an estimated \$48,000,000,000, up 260% over 1939. But if the tax bill is expressed in terms of the over-all ability to pay, the rise is only 50%. For, during the same period, the gross national product (total payments for goods and services produced, including all wages, salaries, profits, etc.) has risen 140%. Indeed, so rapidly has this figure increased during the war that, despite all the new taxes, only this year will the share of gross product taken by taxation really ex-

pand; in 1943 it was still only 18% compared with 16% in 1939.

This is the year most individuals will feel the jump, too—since federal taxes on personal incomes in fiscal 1944 will be triple the 1943 total. From 1939 through 1943, the major boost in tax receipts came in federal levies on corporations. Other federal taxes—customs, excise, payroll, and miscellaneous levies—have little more than doubled. State and local taxes—mostly on property, but also raised from sales, excise, income, corporate, and other sources—have gone up less than 10% altogether through the war.

"Unforeseen events . . . need not change and shape the course of man's affairs"



ANOTHER BUSINESS CALL

HE'S here on business. Urgent business. Your business.

But protecting his fellow citizens is not new to him. It's been his life's work. It was his job back home on Elm Street, just as it is now on a hostile beach.

He is one of the thousands of insurance people now serving in the uniform of their country. Other thousands, unacceptable for military serv-

ice, have taken jobs in the war plants that supply the men at the front—some of them taking on a tough night shift *after* their regular business day.

Still others are putting their hearts and souls and leisure into important war activities of every kind . . . serving wherever and however their efforts will do the most good.

In these unusual times, their business—as usual—is helping and protecting their fellow Americans. Maryland Casualty Company, Baltimore.

THE MARYLAND

Practically every form of Casualty Insurance and Surety Bond, for business, industry and the home, through 10,000 agents and brokers.



OLIVER



**BETTER FASTENERS
FOR YOU**

Today and Tomorrow



BECAUSE OF OLIVER'S

Background of Experience

The performance of any product—whether it be a bridge or a waffle iron—is affected by the quality of the bolts, nuts, rivets and screws used. If they aren't right, they cause trouble. But if they are properly designed, uniform, true to size, they will serve you dependably and well.

To make such fasteners, "know-

how" and modern equipment are needed—and Oliver provides both. Our experience started at the very beginning of the bolt industry. Using modern machinery and advanced manufacturing practices, we can provide the *better* fasteners that make your products *better*—today and tomorrow!

OLIVER IRON AND STEEL CORPORATION

SOUTH TENTH AND MURIEL STREETS • PITTSBURGH, PENNSYLVANIA

I. L. O. to Grow?

Parley studies Roosevelt concept of organization as tool for fabrication of an international policy on labor matters.

Moving into its second week, the International Labor Organization's 26th conference at Philadelphia is not half way through its business. Messages of greeting, addresses by dignitaries, internal organizational problems, and union venture into matters of foreign policy have taken up most of the time thus far. Still to be considered are far reaching proposals of a social, economic and political nature which are the central interest of U. S. industry in I.L.O. deliberations.

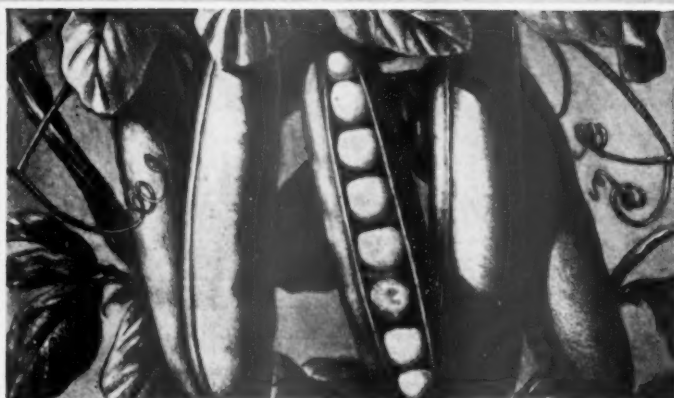
• Praised by Roosevelt—Signaling the importance which Washington attaches

LIMITS GUM OUTPUT

It looked this week as though Philip K. Wrigley had won the battle over which he recently resigned the presidency of the William Wrigley, Jr., Co.: namely, of not reducing the quality of the company's chewing gum in order to make scarce materials go further. For the company announced that its chewing gum output would go exclusively to the armed services after May 1.

It also looked very much as though civilian retailers and the public might find a new Wrigley gum on the market in the near future by way of compromise. For the company has distributed a new product in Milwaukee during the past two weeks. The new brand is Orbit, made with grade B gum base, which has less of the scarce far eastern gums than grade A.

Wrigley officials pointed out this week that it is the shortage of gum base, rather than chicle, which has caused them to limit production. Formerly the company obtained 60% of its gum base from the Far East, in particular from Wrigley's plantation at Singapore; about 40% always came from South America. The latter supply is still coming through although the quantity is short. But the most acute shortage is in certain far eastern gums necessary to balance the gum formula.



Insurance costs are **NOT ALL ALIKE**

MOST insurance rates and practices are standardized. But that does not mean that insurance *costs* are uniform.

Two firms — in the same line of business, employing the same number of workmen — may have very different insurance costs. Because they don't have the same number of buildings — or the same kind of buildings. Because one has poorer lighting and more accidents. Because one has taken more precautions to reduce fire hazards.

These are only a few of the factors which determine the ultimate *cost* of insurance coverage. There are a great many other factors and it is the function of the qualified insurance broker to know them. He has the

experience which aids the business executive in the proper planning of preventive measures, in checking loss experience and loss reserves, in negotiating the lowest possible rates with financially strong and progressive insurance companies.

The use of a competent insurance brokerage organization saves both the money and the time of the client.

Johnson & Higgins have had nearly 100 years' experience as insurance brokers. We are independent, unbiased, and bound to no one insurance company or group of companies. At all times we represent you, the insured. Our services involve no additional cost. *For further information, write or telephone any of our offices.*

JOHNSON & HIGGINS

Established 1845

INSURANCE BROKERS

63 WALL STREET • NEW YORK

Buyers of Insurance for Commerce and Industry

CHICAGO

DETROIT

PHILADELPHIA

BUFFALO

HAVANA

LOS ANGELES

SAN FRANCISCO

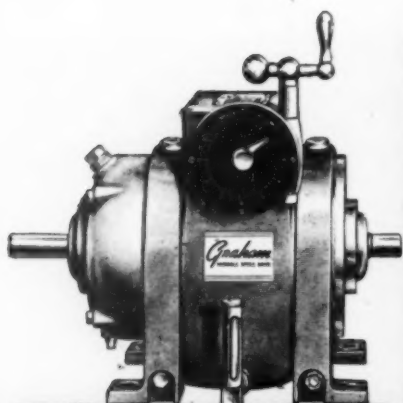
SEATTLE

VANCOUVER

WINNIPEG

TORONTO

MONTREAL



ONLY THE
Graham
VARIABLE SPEED DRIVE
GIVES YOU
ALL SPEEDS
FROM TOP
TO ZERO PLUS
REVERSE

You who are responsible for modernization of machines to compete in the post war market should investigate the Graham, because Graham alone has these **IMPORTANT ADVANTAGES**

- 1 Not just 5 to 1 range, or 10 to 1, or 100 to 1, but every speed to zero, forward and reverse, without stopping the motor.
- 2 Full torque guaranteed over the entire speed range.
- 3 Close speed adjustment with accurate return to pre-set speeds.
- 4 Extreme compactness, all metal, self-lubricated, no belts, no tubes, moderate price.

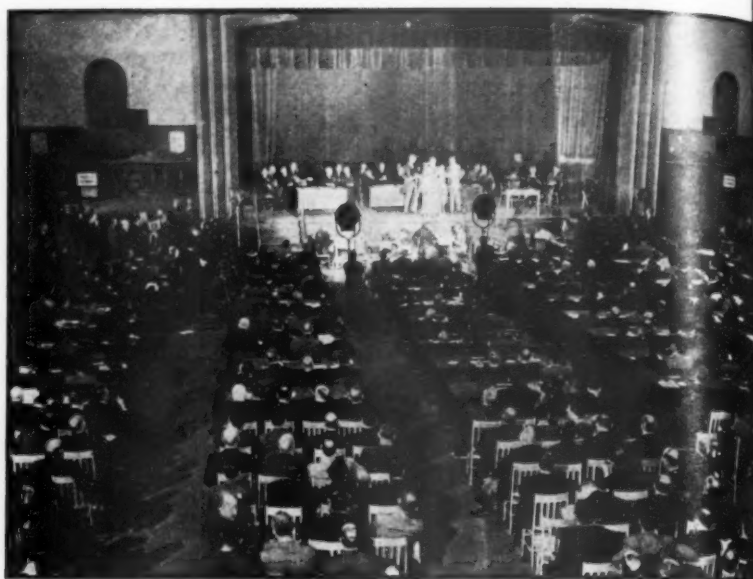
Machine Builders — Order a ½ HP Graham now to prove its advantages — use it in your laboratory as a utility all-speed test unit.

WE CAN DELIVER!

GRAHAM TRANSMISSIONS INC.

2706 N. Teutonia Ave., Milwaukee 6, Wis.

Graham
VARIABLE SPEED DRIVE



Meeting at Philadelphia's Temple University, delegates from 41 countries consider a broad and ambitious program for the International Labor Organization

to I.L.O.'s potentialities as an international instrument for securing broad peace aims was President Roosevelt's communication to the assembled delegates from 41 nations, read in his behalf by Secretary of Labor Frances Perkins, herself a United States representative at the parley. Roosevelt's message was:

"I see in the I.L.O. a permanent instrument of representative character for the formulation of international policy on matters directly affecting the welfare of labor and for international collaboration in this field. I see it as a body with the requisite authority to formulate and secure the adoption of those basic minimum standards that shall apply throughout the world to the conditions of employment. As part of these arrangements, also, I see in the I.L.O. an organization which shall serve the world for investigation and research, for discussion and debate. But more than that it must be the agency for decision and for action on those economic and social matters related to the welfare of working people which are practical for industry, and designed to enhance the opportunities for a good life for peoples the world over."

• **Policy Committee**—The Australian government representative urged the creation of an international labor committee with power to make decisions that would be binding on I.L.O. member governments. Supporting this, in principle at least, were the British. Secretary Perkins notified the conferees that the United States favored making a matter of international concern the maintenance of a high level of employment in all nations of the world. She declared that her statements had been

scrutinized by high officials including those of the State Dept.

• **A.F.L. Is Opposed**—It seemed apparent, therefore, that U. S. policy, in concert with that of a number of important United Nations powers, is to strengthen the I.L.O., and broaden the sphere of its interest. The most significant opposition thus far voiced to proposals for greater I.L.O. sovereignty has come from worker delegates, notably A.F.L. Robert Watt who appealed for avoidance of "making everyone's business our own."

American business has strong sympathy for the principles which Watt expresses, but there will be little surprise if Henry Harriman, representing U. S. employers, ends up by supporting Washington's position. Any labor standards which are devised for universal application will, without much doubt, be well under the U. S. level. In other countries they will raise production costs, swell mass purchasing power, making for two factors favorable to U. S. export interests and domestic enterprises competing in the home market with goods of foreign origin.

• **A Share in Control**—Consequently, the I.L.O. acts to implement proposals covering housing, health, safety, minimum wages, social security, collective bargaining, and a number of related matters, and moves to establish international industry groups concerned with maintenance of standards in particular fields of enterprise, some American firms will have the feeling that through their government they are regulating activities of their foreign competitors.

tries co
anization
including
ned app
y, in co
importa
trenthe
sphere
ant opp
osals to
as com
AFL
or avoid
busines

ing sim
h War
ttle sa
represent
upporting
r stand
niversa
doubt
n other
ductio

U. S.
ente
market

ally, s
posi
num
ectio
l mat
tern
with
icula
firm
ther
ctio

1944



Buy War Bonds — to Have and to Hold

Through the Roof

The whole vast area of conquered Europe is a Nazi stronghold. Massive walls and powerful fortifications defend it—all as nearly impregnable as Hitler can make them.

But overhead there are no walls. It is through the roof that Allied bombers have inflicted the heaviest blows on Germany's war-making machine.

To the valiant young Americans who man the Boeing Flying Fortresses, "through the roof" now has an added significance. On days when there was a thick overcast, Europe was once safe from precision bombing. Today new navigation devices enable the Fortress

bombardier to hit his target through dense cloud cover with almost the same uncanny accuracy as in clear air. The first raid by the Forts on Berlin was made under just such conditions.

The deadly bombing done by the big Boeing planes has become a matter of wonder, not only to our Allies but to the enemy. After Flying Fortresses had demolished the Messerschmitt plant at Regensburg without allowing a single bomb to fall on a hospital which was practically a part of the factory area, our Eighth Air Force fliers got a special radio message from the Luftwaffe. The net of it was: "Congratulations on your accuracy. We don't know how you do it!"

The Fortress crews know the answer. It is done by cool courage, skill and training, and by the bombing stability of the steady-flying Forts themselves.

Some day Boeing's design, engineering and manufacturing skills will be turned again to products of peace. You can be sure of any such product . . . if it's "Built by Boeing" it's bound to be good.

NEW AIR FORCES COMBAT FILM

The Army Air Forces motion picture, "The Memphis Belle," shows heroic crews of Boeing Flying Fortresses in actual combat over Germany. See it at your local theater.

DESIGNERS AND BUILDERS OF THE FLYING FORTRESS • THE NEW B-29 SUPERFORTRESS • THE STRATOLINER • TRANSOCEAN CLIPPERS

BOEING

How we taught a lift truck to keep its feet clean



ONE of the production helps most sorely needed by war-busy American industry was a materials handling unit for moving and spot dumping materials.

Lift trucks, specifically built for this service, were scarce.

The use of ordinary skid boxes with a power fork truck wouldn't do, for there was no practical way of dumping the load.

Union Metal engineers were asked to help.

Their solution was the drop-bottom dump skid box pictured here. In operation, a latch ring fastened to the truck's mast holds the box in place when the skid portion is low-

ered for dumping, while an ingenious device fastened to the underside of the skid prevents it from sliding back and scattering its contents on the forks and around the truck chassis.

Typical of all Union Metal products, this drop-bottom dump skid box was engineered to do a job better, faster, cheaper. When peace comes, the designing and fabricating skills which produced it will be available for the manufacture of many new products of metal. Perhaps, then, these same skills can help make *your* product better, faster, cheaper. Your inquiries are invited. The Union Metal Manufacturing Company, Canton 5, Ohio.



UNION METAL
Craftsmen in Steel Fabrication

POSTWAR LINE

Out of the welter of rumors concerning postwar production plans—and distribution plans for moving the vast output of a war-expanded industrial capacity in a peacetime economy—last week came one solid project.

The Associated Merchandising Corp., with its 23 big city department stores throughout the United States, will distribute a new line of household appliances after the war. The line will be made by Aviation Corp.—not by Consolidated Vultee Aircraft Corp., whose reported interest in consumer goods has caused considerable speculation in past months (BW—Dec. 18 '43, p. 56).

Both companies are a part of the vast financial and industrial empire of Victor Emanuel, who is president of Aviation Corp. and serves on the board of Consolidated. His company now owns 30% of Consolidated's common stock.

A.M.C.'s Col. Philip J. Reilly will be in charge of the aviation company's appliance distribution, which probably will not be limited to A.M.C. stores.

Aviation Corp. plans to produce ranges, heaters, refrigerators, deep-freezers, wheel goods, and electronic devices.

California Riled

Resentment boils as Ickes flays West Coast's attitude on Japanese relocation. Land suits directed against aliens.

Interior Secretary Harold L. Ickes paid a visit to San Francisco in mid-April. As usual, he got under the skin of Californians—this time on the Japanese question.

• **Stirs a Tempest**—The outspoken vastor denounced as professional racemongers West Coast residents who oppose release of loyal Japanese-Americans from relocation camps.

Reaction was immediate. The California department of the American Legion demanded that Ickes resign from his recently appointed job as head of the War Relocation Authority. The Associated Farmers reiterated opposition to return of the Japanese.

• **State Gets Busy**—Meanwhile, California was taking the Japanese problem

its own hands. If and when the A releases them, many of the Japa may have no land to return to. the counties of Los Angeles, San go, and Imperial, escheatment proceedings were prepared for filing against thousands of acres of Japanese-owned cultural lands. The suits will allege the property involved was acquired fraud and in violation of the alien laws.

Name of Minors—It will be alleged that ownership of the property obtained by Japanese ineligible for citizenship who used the name of a live-born minor.

No compensation would be made for property which would revert to the estate upon the presentation of proof of fraud.

Job for Plant

Idle sulphuric acid unit at Gopher Ordnance works to turn out superphosphates for fertilizer. WPB to select the operator.

Latest chapter in the swords-to-plowshares story is being written in St. Paul. The Gopher Ordnance Works is making available the idle sulphuric acid plant at the Gopher Ordnance Works, and an operator will be selected to convert the plant and bolster the fertilizer supply situation by producing superphosphates.

Satisfied With Plan—Interested individuals were given until Apr. 29 to submit proposals for operation of the sulphuric acid plant to the Chemicals Bureau of WPB. Successful "bidder" is to construct a superphosphate plant capable of utilizing the capacity of the acid plant.

Fertilizer people are satisfied with this plan. It opens the field to potential new competition, to be sure, but it gives existing companies an equal chance.

Good Supply—As to the market, the area around St. Paul, while not a large consumer of fertilizer, utilizes sizable quantities of superphosphate. These fertilizers are now in sufficient supply so that all commercial demand is being met with some left over for Agricultural Administration uses.

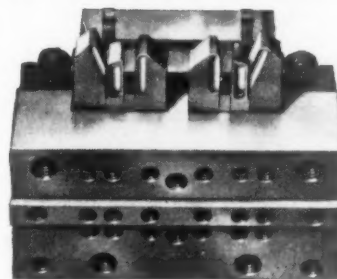
As to the trail-blazing significance of this arrangement, some idea of WPB's thinking may be had from the things it wanted to know about those making proposals for operation of the plant. Applicants were asked about the proposed method of financing, rental they would be willing to pay, plans for expansion in the fertilizer field, number of workers to be employed, and time required to get the plant into operation.

**From many milling cuts
on each one-inch piece
to one planer cut on each ten-foot bar**



... here's how TAFT-PEIRCE CONTRACT SERVICE simplified production of a Gun Part

At right is the double tool set-up on the planer which cuts all angles, faces, and slots on two ten-foot steel bars in one operation. Bars are then cut into one-inch sections, each of which is a completed recoil plate, below.



Production of this recoil plate was formerly done by taking many milling cuts on each one-inch piece. Then Taft-Peirce Contract Service engineers applied some original thinking to the problem . . . transferred the job to a

planer, devised a multiple tool set-up that finished two ten-foot bars in one operation, multiplied production a hundred times over.

Such original thinking is characteristic of the fast-moving, result-getting organization known all over the world for extraordinary accomplishment in every line of industry . . . the Taft-Peirce Contract Division. You can get a clear picture of how it would function for you, by writing for the book: "Take It To Taft-Peirce."

THE TAFT-PEIRCE MANUFACTURING CO., WOONSOCKET, R.I.

TAKE IT TO TAFT-PEIRCE



Smelt Reappear

Silvery fish begin run in Lakes Michigan and Huron, but catches are far too small to mean anything commercially.

Those Great Lakes fishermen who insisted last year that despite the mysterious disappearance of smelt (BW—May 15'43,p60), the silvery fish would reappear in 1944 strutted around in Escanaba, Mich., this week with an "I-told-you-so" smirk.

But the "last laugh" was restrained. Smelt had indeed started running at the head of Lake Michigan, but con-

dition of the spawn indicated that the run would end in a week. Catches amounted to only a few pounds, contrasted with the ton-a-night hauls frequently made by individual fishermen before 1943.

• **Disappear Suddenly**—In January and February, 1943, many a Great Lakes fisherman couldn't believe his own eyes. Nets, usually heavy with smelt, were being hauled up practically empty (BW—Mar.20'43,p42). Most fishermen thought the smelt would return for the spawning season, which usually began in late March and continued for about three weeks.

But the smelt were the only Great Lakes fish that didn't make their spawning run that year. When the ice cleared from the lakes, millions of dead smelt

were washed ashore. What caused the mass deaths still remains a mystery.

• **Cause a Mystery**—According to John Van Oosten, smelt authority at the Fish & Wildlife Service, there was no sign of disease, injury, or parasite. One scientist blamed the deaths on weather. He is Phil E. Church, research associate of the Institute of Meteorology of the University of Chicago, who ascribed the deaths of the million smelt in March, 1943, to the fact that the temperature of Lake Michigan was 33 degrees colder from top to bottom, degrees colder than the previous year.

Old-timers, however, dismissed the subject with the statement that smelt have made one of those cyclical disappearances which often happen to fish and animal life, and predict



OUT OF THE WOODS

Early in 1942 the National Advertising Co., makers of highway advertising displays, faced commercial oblivion. This week, the company—a case study in reconversion—won its Army-Navy E. Caught in the backwash of Pearl Harbor's bombing, the company, situated in agricultural Westminster, near Baltimore, called a rump meeting of foremen and employees.

The decision: to stick it out and try for war orders. Obsolete tools, unearthed in barns and blacksmith shops, were reconditioned for modern production; plans for available skilled labor to teach unskilled were formulated. Since its first subcontract (\$100), the plant has outgrown its original headquarters (above, right)—a converted cow barn—and has installed woodworking tools in private homes (above, left), in unused barns

(below, left) and machine tools in a old blacksmith shop (below, right). The company reports subcontracts from aviation and electrical concerns and has turned out countless cabinets that are used for military radio sets, and precision metal parts which are needed for "secret" war instruments. And the staff has jumped to 120, including former billboard erectors and salesmen who are now operating machine tools.



HOW COOL IS A CUCUMBER?

1 We thought we knew everything about hot and cold. But we learned about cucumbers from an Omaha nurse, who took the temperature of one and found it was just 78° F—twenty degrees cooler than outside. Which proves that Taylor Thermometers are a wonderful invention. For instance:



2 Take gunpowder. Oliver Cromwell said, "Trust in God and keep your powder dry." He might have added, "and keep it cool." Today Taylor thermometers help make powder in the first place, help keep it safe, and help gunners compensate for temperature changes.



3 Or take this new Curtiss altitude chamber, largest in the world, where Taylor Instruments reproduce the below-zero temperatures and barometric pressures of the stratosphere for Air Force experiments. Here Taylor has to mean "Accuracy First."

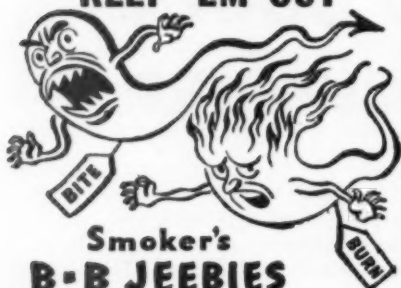


4 So while we're doing our small part toward cooling the Axis, we hope you keep cool when your favorite store is fresh out of Taylor thermometers and barometers. Keep buying extra War Bonds. We'll be back soon!



5 You can still buy a Taylor fever thermometer (and a good idea too, with doctors so busy). And if you're in industry, we may have good news for you! Taylor Instrument Companies, Rochester, N. Y. and Toronto, Canada.

KEEP 'EM OUT



**Smoker's
B-B JEEBIES
(BITE and BURN)**

Smoking is *ALL* pleasure—with Country Doctor Pipe Mixture. Here's why! Country Doctor's extraordinary blending experience; selection of the choicest tobaccos; skillful use of the perfect moistening agent... all three of these superior advantages *together*... definitely do away with Smoker's B-B JEEBIES (Bite and Burn) which usually lurk unseen in ordinary tobaccos. Try Country Doctor Pipe Mixture. Fragrant-cool-and Oh so different.

Country Doctor



25¢
A Product
of Philip
Morris

PLEASURE BY THE PIPEFUL

If your dealer doesn't have it—write Philip Morris & Co., Ltd., Inc., 119 Fifth Ave., N. Y.

**Flexible
STRENGTH**

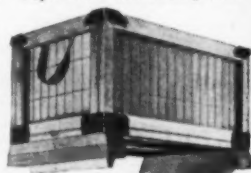


Lewis Containers can take the "bone-crushing" blows encountered in fast-tempo defense industries—without damage to the box or the precious contents. The natural resiliency of Lewis woven wood-and-wire construction enables them to stand up under conditions that would soon reduce an ordinary wooden container to a pile of kindling wood and a metal container to a crumpled, battered tin can.

Use Lewis Containers for handling parts, stampings, small castings, sub-assemblies, etc. Standard BOXES, TRAYS, or BOX TRUCKS to fit many needs. Special sizes, strength, or constructions for specific applications. Send for complete catalog.

G. B. LEWIS CO. Dept. W42 Watertown, Wis.

LEWIS SKID BOX
Flexible woven-wood-and-wire construction, heavily reinforced. Unique skids — for fast, easy stacking with power lift truck.



LEWIS
INDUSTRIAL CONTAINERS

will be back in great numbers in 15 or 20 years.

• **Once a Nuisance**—When the smelt appeared by the millions in Lake Michigan waters in the early thirties, they first were regarded by commercial fishermen as a curse, because they fouled their nets and aroused fears they might drive other species away.

Then, somebody thought about eating the smelt, found they were good, with the result that a great demand for smelt was created throughout the country, and in 1942 more than 5,000,000 lb. were marketed.

• **Brought Fancy Prices**—Smelt caught through the ice in Lake Michigan from January to March brought fancy prices in 1942.

In 1942, 1,000,000 lb. of smelt were caught at Escanaba alone. In 1943, the catch at that point fell to 500,000 lb.

• **Evidence of Extinction**—Another indication that the smelt had been wiped out was the fact that last summer scientists found none in the stomachs of lake trout, which normally prey on smelt during the summer. Reports from the state of New York indicate that the smelt in the Finger Lakes also died last winter.

Smelt are not native to the Great Lakes but were introduced from Grass Lake in Maine in 1906. They were planted in Crystal Lake, lower Michigan, to provide food for land-locked salmon, also planted there as an experiment. The salmon disappeared, but several years later the smelt were found in great numbers making their spawning runs in northern Michigan streams. Later, they spread to Lake Huron and Lake Superior. During the nocturnal spawning runs upstream, the smelt were scooped up in dipnets by men, women, and children who lined the banks.

Clubs Fight Tax

Performers, hard hit by increased levy on night spots, to Congress for relief. Look reduction of rate to 10%.

Night club entertainers during past month have been losing their in wholesale numbers because the 30% federal entertainment tax is being so heavily into cabaret patronage and come that an estimated 80% of smaller places are discontinuing shows in order to stay in business. Instrumental music and "juke boxes" not qualify under the law as "entertainment"; only a floor show makes a liability for the tax.

• **Seek Rate Cut**—A.F.L.'s American Guild of Variety Artists announced last week that 20,000 of the nation's 40,000 singers, dancers, and variety artists would be out of jobs by May 1, and that a large percentage of the balance would be unemployed by the end of May unless Congress reduces the tax.

The union has begun a campaign in Washington to convince congressmen that a smaller tax would yield great returns. Last week Rep. Harold Knutson of Minnesota introduced a resolution which would cut the levy back to 10%. Before the new tax law went into effect Apr. 1, the rate was 5%.

• **Expect Early Action**—According to Matt Shelvey, A.G.V.A. administrative director, a sufficient number of congressmen have lent sympathetic ears to the plight of the entertainers to make the union optimistic about early relief.

New York's U. S. Senator Robert Wagner, who has assured A.G.V.A.



Auctioneers conduct a funeral for New York's Continental night club while Congress considers a cure for the cause of its death—the new 30% cabaret tax.

Tax
hit by
spots,
Look
0%.

...the boss deserves
a medal for **THAT**"



He sure knew what he
was doing when he had that
EMERSON-ELECTRIC Exhaust Fan put in!"

"TAKE IT from an old-timer—that fan makes a whale of a difference! It used to get so stuffy in here the boys couldn't do a halfway decent job. The boss saw something had to be done—and that fan really cleared the air for action! He was plenty smart, too, because pretty soon the war came along and there just weren't any more exhaust fans to be had! Believe me, there are plenty of bosses kicking themselves right now because they didn't get sufficient exhaust fans while they still had the chance!"

After Victory, business men will again be placing their orders for Emerson-Electric Exhaust Fans to clear the air and increase efficiency in *their* stores, offices, and factories.

An illustrated catalog, describing the various types and sizes of Emerson-Electric Exhaust Fans, is available for postwar planners.

THE EMERSON ELECTRIC MANUFACTURING COMPANY
SAINT LOUIS (3), MO.

Branches: New York • Chicago • Detroit • Los Angeles • Davenport



Nose Turret of
B-24 Liberator
Bomber

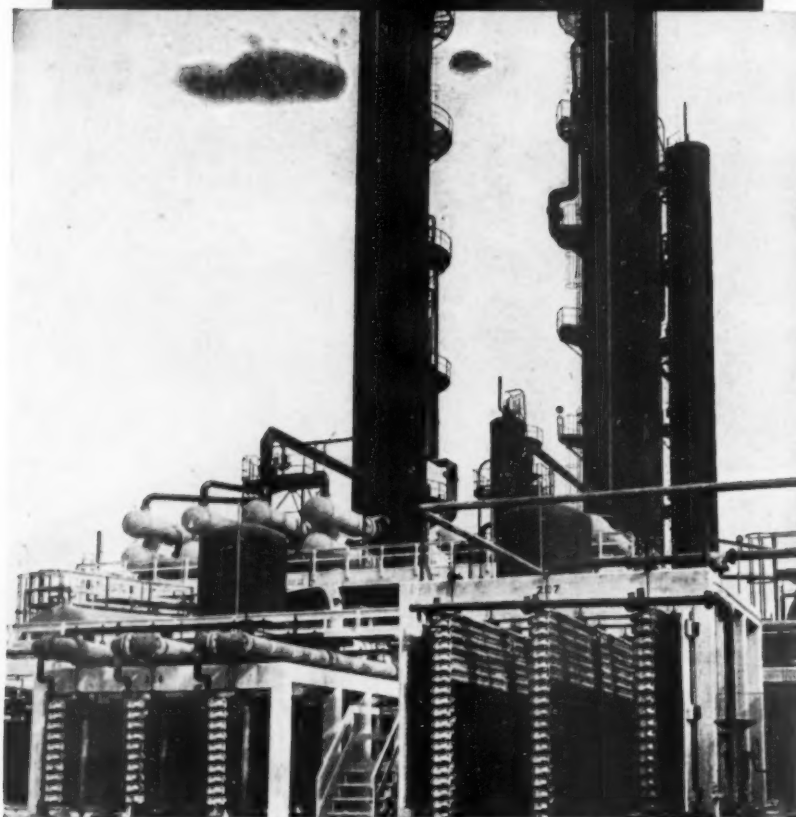
Today Emerson-Electric power-operated gun turrets and electric motors for aircraft are in active service on all battle fronts of the world.

Aircraft Motor

EMERSON  **ELECTRIC**

MOTORS • FANS • APPLIANCE

GLASS-LINED HEAT EXCHANGERS for Corrosive Chemicals



Pfautler Glass-Lined Steel Heat Exchangers At The
Neches Butane Products Co., another in a wide range of
process equipment designs made by The Pfautler Co.

BUTADIENE is the life blood of our new synthetic rubber program. But the components used in its manufacture are highly corrosive. They must also be handled at elevated temperatures and pressures . . . too tough for any ordinary materials of construction. Consequently, Pfautler glass-lined steel polymer heaters and coolers are on the job. Through 8500 ft. of acid-resisting glass-lined pipe strong sulphuric acid, hydrocarbons and tertiary butyl alcohol surge at temperatures up to 250°F and pressures up to 150 P.S.I.

Pfautler Engineering Can Be Helpful To You

In this installation is another concrete example of the way Pfautler engineering and fabrication know-how solved a difficult process problem. But it is only one of hundreds. If you process chemicals, foods or allied products which require heating or cooling, agitation, concentration by evaporation or distillation, extraction, pasteurization, filling, peeling or similar

treatment, we would welcome the chance to work with you. We are specialists in the field of corrosion resistant equipment and whether or not you have an immediate problem, we will be glad to send you our paper on "Materials of Construction" with an accompanying condensed resistivities table. Write The Pfautler Co., Rochester 4, New York.



P F A U L E R

Engineers and Fabricators of Corrosion Resistant Process Equipment

his "cooperation," is expected to reach the ball for a reduction when the bill reaches the upper house.

Entertainment for service men, women and the forthcoming Fifth War Bond drive will be seriously affected, Shelvey stated, if the present conditions continue because "performers can be expected to give free shows as they are out of work and unable to earn a living."

• **Many Clubs Close**—To determine how seriously show people had been affected by the increased tax, A.G.V. last week conducted a nationwide check which showed that in Boston 30 theaters had been closed entirely or had cut out entertainment; in New York, 25; San Francisco, 31; Miami, 87; Philadelphia, 14; and Cleveland, 15.

Some cabaret operators feared that 50% of the clubs might be forced to close of business. Others, more cheerful, cited the experience of Canada. There heavy night club tax cut into patronage seriously at first, but after a brief lull business bounded back to previous levels.

A few cafe owners have devised ways to get around the tax. For instance, where the bar borders on the dance floor, some proprietors have put up a barrier so that the bar customers cannot see the floor show. Others have eliminated the singers with their orchestras and filled in the dance floor with table Jolly customers who like to break into song are frowned upon. The tax collector may consider them to be entertaining other patrons.

Efforts Merged

Aircraft industry chiefs will join hands in the Aeronautical Chamber of Commerce to battle for postwar survival.

The U. S. aircraft industry's fight for postwar survival began this week with the meeting in Los Angeles of presidents of 18 major aircraft manufacturing corporations.

• **Pick a Champion**—Until now disorganized, fighting what they say are losing individual battles for enough profit in war production to enable them to weather postwar readjustment, they appeared as members and directors of the Aeronautical Chamber of Commerce to make the chamber their champion from now on in Washington.

Monday and Tuesday, they met at the National Aircraft War Production Council to confer on war production and manpower problems for the months ahead. But on Wednesday they be-

ected to
when the
ice men
ing Fifth
asly after
ent condi
mers can
shows
able to
etermine
had been
A.G.V.
nwide ch
ton 30 to
irely or
ew York
87; Ph
15.
feared
e forced
ceful, c
There
o patron
a brief
o prev
vised
or instat
the dat
e put m
ers can
ave elen
orchestr
with tabl
eak m
e tax
be ent
d
chief
nautica
o batt
fight
eck w
of pre
ufact
w dis
are la
a prob
hem
the
ctors
Com
the
ington
met
duct
on an
month
ey be
1940



Why do they make
Jeeps out of STEEL?



Because you can't beat
STEEL for toughness!



Can you imagine a Jeep made of anything but steel? Steel's toughness has been tested by war. Keep this in mind when peace comes. The new and better war-steels will be ready for you then. Many of them resulting from research by 174 U.S. Steel laboratories. They'll be made into all kinds of products from farm trucks to steel roofing. Marked with the U-S-S Label. To assure you of *quality steel*.

UNITED STATES STEEL

- AMERICAN BRIDGE COMPANY • AMERICAN STEEL & WIRE COMPANY •
- CARNEGIE-ILLINOIS STEEL CORPORATION • COLUMBIA STEEL COMPANY
- CYCLONE FENCE DIVISION • FEDERAL SHIPBUILDING & DRY DOCK COMPANY • NATIONAL TUBE COMPANY • OIL WELL SUPPLY COMPANY •
- TENNESSEE COAL, IRON & RAILROAD COMPANY • TUBULAR ALLOY STEEL CORPORATION • UNITED STATES STEEL EXPORT COMPANY • UNITED STATES STEEL PRODUCTS COMPANY • UNITED STATES STEEL SUPPLY COMPANY
- UNIVERSAL ATLAS CEMENT COMPANY • VIRGINIA BRIDGE COMPANY



IF YOU could take a trip through the Armco Research Laboratories, you would see sheet steel reveal many of its innermost secrets.

You would watch machines test these sheets; peer into microscopes that show their grain structures; stand by an X-ray machine that searches into their atomic structure; observe chemical tests that track down their compositions.

Sheet Steel Specialists

For more than forty years Armco Research has created new and improved *special purpose* steels — to help manufacturers make products that are more durable, efficient, attractive and salable.

For example, Armco developed the original enameling iron for refrigerators, ranges and other porcelainized products. This special metal has been constantly improved, and after the war will offer some interesting possibilities for new and better products.

Product, Market Assistance

Our long experience in producing *special purpose* steels may be valuable

to your company in planning post-war products. We can help you select the grade best suited to your purpose — whether you need sheets combining great strength with light weight; special finishes or coatings; attractive appearance; or exceptional fabricating qualities; or combinations of these qualities.

And perhaps our studies of markets for sheet metal products can benefit your sales organization. Just let us know what you are making or planning to make. The American Rolling Mill Company, 1731 Curtis Street, Middletown, Ohio.

**HELP FINISH THE FIGHT —
WITH WAR BONDS**



Special Purpose Steels FOR TOMORROW'S PRODUCTS

came the Aero Chamber, recently suddenly vitalized by election to the rectorate of 15 of the nation's strongest aircraft manufacturing presidents.

Appearance of Dr. A. E. Lombard at the Tuesday meeting as a spokesman for WPB gave added significance to reports that some plane plants will make consumer goods after the war (page 3).

Lombard said WPB's order P-45 actually is a go-ahead to make prototypes of the things the aircraft industry hopes to produce after the war, whether openers, cameras, or washing machines.

The order, he pointed out, permits "laboratories" to get materials to build prototypes, and plane plant divisions engaged in prototype development are classified as laboratories.

● **Industrial Program**—Industry campaigns that are in store for the Aero Chamber are:

(1) To gain by administrative concessions or congressional action fewer war contract cost disallowances.

(2) To get from the government a definite expression of policy on contract terminations.

(3) To win a softening of contract negotiations as a major step in building the industry's postwar reserves.

● **Air Power Policy**—Posed for consideration of the delegates and ultimate recommendation to the federal government was a four-point air power policy "to maintain air power sufficient in conjunction with other forces) to win the war and keep the peace":

(1) By fostering orderly and economical expansion of private flying in domestic and international air transport.

(2) By acquiring and maintaining air bases essential to security and overseas trade.

(3) By maintaining Army and Navy air forces at such strength and in such a state of readiness as to preclude a successful assault.

(4) By fostering a strong manufacturing industry.

NEW USE FOR SMOKEPOTS

Smokepot protection against frost, standard for years in the citrus belt, may spread to the fruit and vegetable regions of the Rockies as well as to other areas.

A total of 3,347 surplus smoke screen generators have been offered for sale by the Army in Denver, and several have been bought on an experimental basis by fruit and vegetable growers. A Colorado commercial cucumber grower reported that he could have saved thousands of dollars if he had had the smoke-makers to fight off early frost last September. The generators are about 6 ft. high, are made of heavy metal sheet, and burn fuel oil. More than 10,000 have been sold to West Coast growers.

Smoke Ban Hurts

War needs for coal offset effect of St. Louis ordinance, but southern Illinois mines prepare to meet postwar conditions.

A study of current coal production figures reveals that the vastly expanded need for coal by war industries has removed, at least temporarily, the specter of economic distress which once haunted southern Illinois coal producers as a result of the St. Louis antismoke ordinance.

Output Increases—The Illinois coal output was 12.5% greater in 1943 than in 1942, compared with a gain for the entire country of only 1.6%.

Moreover, St. Louis—although keeping out certain grades of coal which do not measure up to its regulations—bought 76,083 more tons of Illinois coal in 1942 than in 1939, the year before the ordinance went into effect.

No Armistice—With these soaring tonnage figures to comfort them, the Illinois producers stayed strictly on the sidelines in the latest fight against the ordinance, involving St. Louis city officials and the Office of Defense Transportation.

The dispute started when Fred A. Schleifer, associate director of the Division of Railway Transport of ODT and a former Illinois coal mine manager, threatened that ODT might set the law aside as a measure of war necessity if the city did not do so voluntarily. It ended with assurances from ODT that no such attempt would be made, and with Schleifer's resignation from his government job.

Effect on Mines—The Illinois producers and the state geological survey division, headed by M. M. Leighton, are not letting current tonnage increases blind them to the fact that the St. Louis ordinance has cost the Illinois mining industry approximately 33,000,000 in three years; and that it could, in the absence of war-boom tonnage, bring serious economic disturbances to some if not all of Illinois' coal-producing counties.

These facts are made clear by a marked decline in the percentage of St. Louis' total coal import supplied by Illinois mines since 1939. In that year Illinois delivered 89% of the 3,887,657 tons of coal shipped into St. Louis. While the tonnage used by the city went up to 4,638,867 in 1940, Illinois' share dropped to 80.8%. In 1942, Illinois furnished only 75.3% of a total of 5,600,000 tons. At the 1939 price of \$1.64 at the mines, the loss

The Super saw them in his SLEEP!



Bins bare of parts. Racks shy of sheets, rods, tube lengths. Empty floor areas where castings should be piled high. Always the hot fear that some hour the assembly line would stop for lack of material!... And the new string of flats on the siding every night couldn't be loaded with alibis.

The stuff you had too much of came in earloads. Short items came late by air express. Now the last man who understood the screwy inventory had "Greetings" from his draftboard.

The Super sobbed out his troubles to a slide rule joker from Production. The figure guy said "Get McBee!"

A McBEE man made a survey and came back a few days later with a plan that looked good on paper. The Super was willing to be shown.

The McBee man came again with a mess of Keysort cards, a unit analysis outfit, and a couple of the girls from Accounting. Soon inventory control was a fact. The Super tried to trip up the girls from time to time, but the records were always ahead of him. Shortage warnings were automatic, and on time. The checks on work in process and finished stock were up to date—and correct... And the girls like their jobs!

Contract terminations will make inventories—and accurate inventory information—mighty important... which makes McBee important now! McBee methods and products make essential information available faster; are simple, easy to understand and use; save time, worry, and usually clerical expense. If you need any kind of information on your own business faster, you need to see a McBee man, soon. Call any office...



THE McBEE COMPANY
SOLE MANUFACTURERS OF KEYSORT

295 Madison Avenue, New York 17, N.Y. . . Offices in principal cities

Check this Chart for Products like Yours!

A Few of Many Products Served by Power-Packer	Power-Packer Function	A Few of Many Products Served by Power-Packer	Power-Packer Function
HEAVY-DUTY TRAILERS	Lower and raise wheels	HIGH-PRESSURE TESTERS	Build fluid pressure
BARREL HOISTS	Raise barrel lift	AVIATION JACKS	Raise plane
ROAD FINISHERS	Control screed	LIFTING CRANES	Clutch control
AGGREGATE DRYERS	Tilt dryer cylinder	ROAD GRADERS	Blade control and steering
COAL CUTTERS	Position cutter arm	SCARIFIERS	Raises scarifier teeth
ROAD DISCS	Control pitch and depth	ROAD RIPPERS	Raises ripper teeth
SNOW PLOWS	Raise plow blades	ROTARY TILLERS	Adjusts tiller depth
GANG MOWERS	Control sickle arm and raise mowers	PRESSES	Hydraulic Power
TROLLEY BUS LIFTS	Raise trolley	ROTARY BROOM SWEEPERS	Raise broom

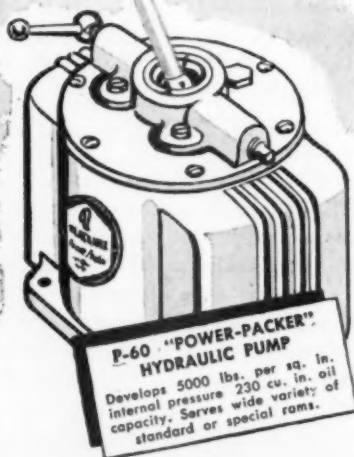
You May Find Need For

Power-Packer

If your product requires the application of controlled force to an operating part — and IF you would like to know how to give your equipment *added* sales appeal and *extra* speed and ease of operation — then you will want to know about the Blackhawk Hydraulic Power-Packer.

Ready to Install

The "Power-Packer" Hydraulic Pump can be furnished with standard rams — or with special rams, tailor-made for your product. Blackhawk is also the source for power-driven hydraulic pumps. For information on hydraulic controls for your future product designs — or present hydraulic applications, write Blackhawk Mfg. Co., 5300 West Rogers St., Milwaukee 1, Wis.



BLACKHAWK
Hydraulics

would approximate \$3,000,000 for the three years.

• **Briquets Tried Out**—Anticipating the day when today's huge coal demand will drop off sharply, Illinois is working earnestly to win back the lost St. Louis tonnage—not by "sniping" at the ordinance, but by seeking means to make their coal conform to the St. Louis regulations.

The state geological survey, for instance, is working on a process to make briquets from deduster dust, a residue from the preparation of stoker coal.

• **Smokeless Furnace**—The University of Illinois, with Prof. J. R. Fellows' ingenuity, has developed an "Illinois smokeless furnace" (BW—Apr. 17 '43, p94).

Several different processes for the efficient and economical coking of coal are also being developed, and producers probably again will seek to encourage stoker installations when this equipment is available.

• **New Outlets**—The war has helped to develop new outlets for Illinois coal in Iowa, Missouri, Wisconsin, and Nebraska, but a marked decline in the consumption of these markets is expected with the end of the war.

Moreover, transportation to these more distant points is principally by rail, whereas nearby St. Louis provides a vastly bigger potential market accessible from many of the coal-producing counties by truck. And Illinois doesn't intend to let that market slip out of its hands.

TEMPEST IN A PIG PEN

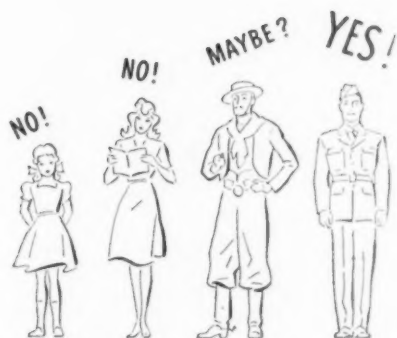
When the title of the lawsuit is Fruehauf vs. Sorensen, Detroit picks up its ears, for Harvey and Roy Fruehauf are among the nation's best-known trailer builders and Charles E. Sorensen, former Ford vice-president, is an internationally famous production wizard.

But the litigation which pits the Fruehaufs against Sorensen holds little but amusement for the automotive industry. Their wrangle is over hogs, some Hampshire hogs that Sorensen auctioned at his Cesor Farms last year. The Fruehaufs bought three boars, 40 sows, and 250 gilts for \$37,000. When the critters were delivered at Fruehauf Farms in Iowa, they were found to be infected with Bang's disease, and they became sausages instead of breeders.

The Fruehaufs want \$100,000, partly as costs and partly as damage to their reputation as hog breeders. Sorensen contends the hogs were perfect at the time of sale.

Detroit has a theory which subordinates Bang's disease as a cause of the lawsuit. It is that one of the litigants tried to pirate a herdsman from the other.

CORRECTION PLEASE!



*Corona Portable Typewriters are not yet available
for general civilian distribution**

Recent news of limited resumption of office typewriter manufacture by our Syracuse plant has started a flood of inquiries about portable typewriters also.

But our facilities for portable machine manufacture are still almost totally required by our armed forces; and the trickle of new portables now made is completely absorbed by Army, Navy, and Maritime Commission, plus authorized export allocations. So civilian orders cannot now be filled.

However, this widespread demand for Coronas leads us to

make you this definite promise: *We will not lose one unnecessary hour in getting back into portable production when authorized.*

As earnest of this intention, we announce that when portable manufacture is resumed, we shall concentrate our facilities on the four popular pre-war models illustrated below; we will not wait for the perfecting and testing of post-war refinements.

Put it this way. You want portables . . . lots of them. We can make lots of them . . . *fast* . . . if we don't take time out to re-tool for changed designs. So

while undoubtedly we'll have new designs to offer some day, we'll postpone that job until later . . . and give you as fast as possible the four fine portables that America was buying so heavily before the "freeze."

We hope you will approve this decision.



SMITH-CORONA
Typewriters

LC Smith & Corona Typewriters Inc Syracuse 1 NY

*Subject to possible changes in regulations subsequent to going to press; consult your local Smith-Corona Branch Office or Dealer.



CORONA SILENT

CORONA STERLING

CORONA STANDARD

CORONA ZEPHYR DELUXE

Sugar Is Brighter

Near-record yield is seen from Cuban cane—taller, thicker, and juicier than expected—and it augurs well for industrial users.

Brighter sugar prospects for industrial users are contained in the latest reports of the Cuban Sugar Stabilization Institute.

Cuban cane is taller, thicker, and juicier than had been expected earlier this season. A near-record yield of 5,850,000 tons, as compared to the 3,250,000 tons produced in 1943, is expected. About half completed now, the grind will be finished by June.

• **Bigger Commitment Asked**—Because of the larger crop, the War Food Administration has been asked by the Cubans to increase its minimum purchases from 4,800,000 tons to 5,500,000 tons. The original commitment was to buy 4,000,000 tons, but this was later raised to 4,800,000, with the requirement that 800,000 be made into invert molasses for the production of industrial alcohol (BW—Dec. 18 '43, p19).

WFA again will increase its purchases, with the requirement that 1,000,000 tons be made into invert. The increase will yield 500,000 tons

more sugar and larger quantities of both invert and blackstrap molasses for alcohol production.

• **Bigger Ration?**—Officials are cheered by the better prospects, but they point to shipping difficulties as the principal barrier to increased sugar rations. If all the sugar can be shipped, the ration for industrial users could be increased to 80% of their 1941 base (it is now 70%) later this year.

Early movement of the additional invert and blackstrap molasses is also desired to lessen the drain upon the rapidly vanishing supplies of grains for livestock feeding and industrial utilization.

• **Shipping Deficit**—Current liftings of sugar from the Caribbean practically match the shipping quotas, but there's a first quarter deficit of 230,000 tons in shipments below quotas still to be made up.

Still another deterrent is that during the first quarter of this year the distribution of sugar under OPA rationing was 200,000 to 300,000 tons in excess of allocations.

• **Too Generous**—WFA officials believe that local rationing boards—probably influenced by President Roosevelt's statement last summer that there was plenty of sugar—accede too readily to requests for more sugar.

It's believed also that concentrated household buying may account for some of the excess distribution, but that

little sugar is leaking into the production of moonshine whisky.

• **More Sugar**—Plans are also being made by WFA to purchase an estimated total of 10,000,000 tons of Cuban sugar in 1945 and 1946. The price doubtless will be higher than the \$2.45 per cwt. paid in 1943 and 1944, possibly \$3 to \$3.25. The higher price would require larger subsidies by WFA in order to hold retail prices at present levels.

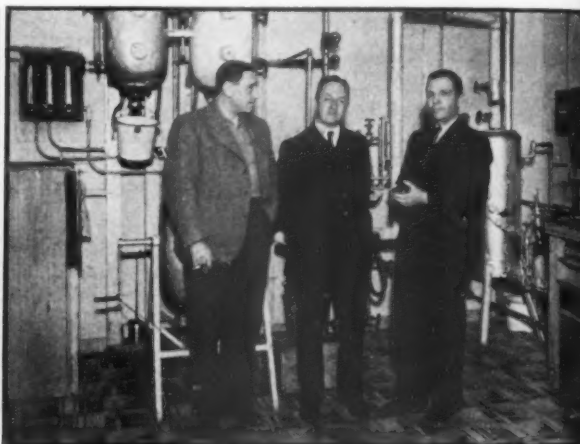
Some adjustment also would be involved with respect to the current commitment to supply flour, lard, and rice to the Cubans at 1943 prices. The flour commitment is now costing the WFA a subsidy of \$1.45 per cwt.

Subsidies are also being paid by WFA to offset increased island, ocean, and mainland sugar shipping costs.

LABEL RULE BACKFIRES

So successfully have the allied printing trades campaigned for recognition of their union label that more and more customers are demanding the label on printed matter. To meet this demand, some small shops are circumventing the unions' rules on wages and working conditions.

Calling the maintenance of union conditions in the small shops a problem "plaguing" the industry, the magazine Printing called upon the unions "in



RICHES IN RICE

A new process that promises to revolutionize the harvesting and processing of one of civilization's oldest foods—rice—is being regarded with keen interest by southern farmers and millers together with farm implement makers. Rice, harvested principally by reaping, sun drying, and threshing, can now be harvested by a combine

(above, left) while still wet—thus eliminating much crop loss by storm, and netting up to \$15 more an acre through savings in labor formerly needed to shock and haul the rice to threshers. Center of agricultural interest is the Converted Rice plant in Houston, Tex., where Eric Huzenlaub and Gordon Harwell (above, right), codevelopers of the process, are aided in research by Dr. M. C. Kik

(center) of Arkansas College of Agriculture. Instead of grinding off vitamin-rich hulls, unmilled rice is placed under steam pressure which literally drives food nutrients from the hulls into the kernels. Moisture is removed by vacuum, and after the husks are milled off, the kernels have a glazed surface reported to be weevil-proof. The plant is producing 900 bbl. a day, most of it going to U.S. fighting forces.



The Four Responsibilities

THE products manufactured by The Youngstown Sheet and Tube Company represent about one-sixth of one per cent of America's active wealth. As steward of this important fraction of the nation's production facilities, this company's management has always been guided by four supreme responsibilities:

1. Responsibility toward its owners, the stockholders, whose savings created the business and keep it alive and healthy -- to preserve their investment and pay fair returns.
2. Responsibility toward its employees, whose labor produces steel--to provide steady employment at good wages.
3. Responsibility toward its customers, who need and use its products--to supply quality steel at fair prices.
4. Responsibility toward the nation, which maintains an invigorating climate of free enterprise--to pay taxes, to foster good citizenship, to provide the sinews of war and peace.

Recognition of these four responsibilities by all Americans can keep America a land of opportunity. They are as vital to Free Enterprise as are the four freedoms to democracy. Not one can be neglected or damaged or destroyed without impairing the others.

Acceptance of these four responsibilities permitted Youngstown, a modest \$600,000 small-town venture in 1900, to become one of America's strong industrial companies in 1944--a bulwark for the nation in war today and for peacetime reconstruction tomorrow.

YOUNGSTOWN

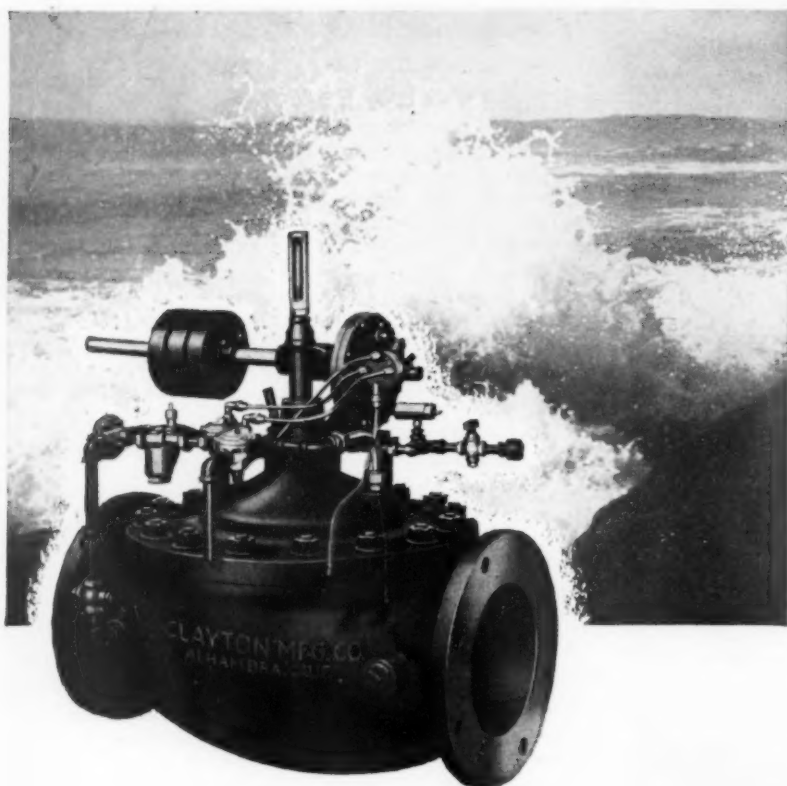
THE YOUNGSTOWN SHEET AND TUBE COMPANY

YOUNGSTOWN, OHIO

Manufacturers of

CARBON · ALLOY AND YOLOO STEELS

Pipe and Tubular Products · Sheets · Plates · Conduit · Bars · Tin Plate
Rods · Wire · Nails · Tie Plates and Spikes · Alloy and YOLOO Steels



Terrific Power Under Smooth Control

The same tremendous waterpower that destroys breakwaters and carves great gullies in fertile farms is harnessed effectively by Clayton Feather-Touch Valves to perform useful work. Clayton engineers have developed a new method of using line pressure so that the liquid controls its own flow and level. Thousands of once difficult flow problems are solved simply and effectively—by the smooth, positive action of Clayton Hydraulic Valves.

Now Clayton Valves automatically maintain liquid levels in tanks or sumps, provide sensitive, automatic control of pressure, without line hammer, shocks or leaks—handle several valves with a single remote control—and serve in many other industrial applications.

For complete information on the unique features of Clayton Feather-Touch Valves and their applications to countless industrial and municipal requirements, write for Bulletin No. 5.

Other Clayton products serving the Armed Forces include: Flash Type Steam Generators—Hydraulic Dynamometers—Kerrick Kleaners and Kerrick Cleaning Komponents—Boring Bar Holders and Boring Bars.



their own best interests" to make the term "union label conditions" standard uniformly applicable to label plants.

For instance, one rule to get around the rule that the union label may be used unless at least one journeyman member of the union is employed for the printer to make his wife the proprietor of the plant while he comes the employed journeyman, can then fix hours and wages for himself as he sees fit.

By such means, the small shops cut prices sharply under levels possible in larger union shops. The end result, Printing says, militates against both union membership and the employment of union labor.

The allied unions' rules on label privileges have been in effect for more than 30 years, and require the unanimous consent of all six unions to make changes.

Unit of Business?

Owners of two companies, neither with eight employees, run into trouble with state compensation legislation.

If a little businessman operates two businesses, neither of which employ eight persons, do they together constitute an "employing unit" under state unemployment compensation acts if the total employment is eight or more?

• **Follow a Pattern**—Unemployment compensation acts are state laws, but they are largely on the federal pattern, the "eight or more" provision, for instance, being uniform. Decisions by state courts vary, but most have ruled that such businesses are separate for employment purposes when conducted in complete separation, even though under the same ownership or control. The rule seems to be that businesses that would be run as a unit in the absence of the tax statute constitute a unit under it.

The Colorado Supreme Court recently upheld a district court ruling that the Biff Mfg. Co. of Pueblo, which makes insecticides and floor cleaners, and the A. C. Leach Realty Co., are separate although both are controlled by A. C. Leach. They are conducted at separate sites with no mingling of records or of employees' duties.

• **Rulings Vary**—Other recent state court rulings:

Missouri—Two businesses under the same ownership but conducted in different counties held to be separate.

Indiana—Two petroleum companies

Do you know...?

Quiz on wartime short-cuts useful for peacetime production—No. 1



Q. Protective enamel on aircraft engine parts is dried at temperatures up to:

- ☐ 100° ☐ 300° ☐ 500°

A. 300°. To speed production, the temperatures in paint-drying ovens had to be raised—a masking tape was needed to stand up under high heat. Permacel's high-temperature masking tape helped solve this problem. Hangs on tight till the job is finished, then strips off clean, leaving a sharp, straight edge.



Q. He knows what kind of shell is in this canister by:

- ☐ Color of canister ☐ Shape of canister ☐ Seal

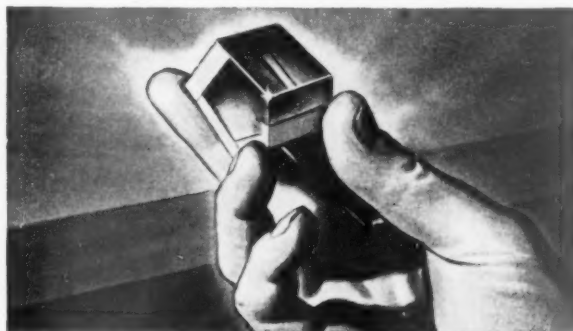
A. Colored, imprinted Permacel cloth tape (Jonflex) serves to identify shell in canister and holds the canister together. Today used on many other military items, this tough, quick-sticking, clean-stripping tape will likewise protect and identify many peacetime products.



Q. One of the purposes of these wing slots is to:

- ☐ Provide lift ☐ Eject empty shells ☐ Ventilate the wing

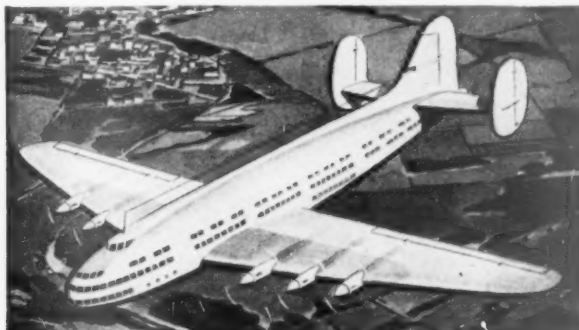
A. Empty machine gun shells are ejected through these wing slots. To protect the gun mechanism against moisture and dirt, ground crews keep wing slots covered with a special cellophane tape.



Q. How are prisms for gun sights and periscopes made?

- ☐ Ground ☐ Cast ☐ Mined

A. Ground. In grinding prisms, protecting the polished surfaces is an exacting job. Recently, in one instance, rejects were cut from 60% to less than 15% by use of Permacel moisture-proof cloth tape on surfaces exposed to chemical bath. Thousands of yards of this Permacel tape (Utilitape) are also used daily to protect vital parts of planes and tanks during overseas shipment.



Q. Postwar airliners will be kept on course by:

- ☐ Horoscope ☐ Gyroscope ☐ Anemoscope

A. Gyroscope. This device, used today on planes, tanks and other war machines, may tomorrow be guiding your private plane. A special Permacel glass tape (Glasflex) protects gyroscope motors against electrolytic corrosion, prolongs motor life, increases safety.

Q. Which of these types of pressure-sensitive tape can help speed and improve *your* production?

- ☐ Paper ☐ Cloth ☐ Cellophane ☐ Metal ☐ Glass

A. All of these types of Permacel tapes are today used in war production. Many war uses will prove helpful in your business when you return to post-war work. Meantime, our research laboratory facilities are available to you for development of special tapes to fit war or post-war needs.

Permacel
INDUSTRIAL TAPES

INDUSTRIAL TAPE CORPORATION

New Brunswick, N.J. Makers of **Texcel Tape**

owned by a man and his wife, but independently operated, held to be separate.

Connecticut—Two companies under the same ownership, where part of the business of one had been transferred to the other, thus avoiding the tax, held to be an employing unit.

Maine—Two companies under the same ownership, each operating a boys' camp, held to be an employing unit.

North Carolina—Two businesses under the same ownership, handled in one office, with records and employees' duties intermingled, held to be an employing unit.

• **Legislation Amended**—State legislative handling of the problem differs also. Florida has tightened its provisions to unitize businesses formerly held to be separate, while North Carolina and Colorado have repealed unifying clauses. The Colorado case turned on taxes paid in 1936 to 1940, before the repeal of the clause in 1941.

Can't Take It

Some war veterans found unable to stay on shipyard jobs despite screenings for mental and physical ailments.

More than 3,000 veterans of this war are employed in shipyards in the Portland (Ore.) area. They come and go—many for physical or mental reasons.

The three Henry J. Kaiser shipyards have more than 2,500 veterans, many of them wearers of the Purple Heart (for combat wounds) and other overseas decorations. Kaiser officials say, though, that 1,200 of the war veterans have quit because they "couldn't take it."

Each shipyard has a placement officer

who endeavors to learn what the veteran is physically capable of doing. The idea is to fit the veteran into the job that fits him.

• **Cleared Through USES**—First, of course, the veteran is cleared through the U. S. Employment Service's veterans' unit, which, in Portland, has a staff of eleven.

If a veteran believes he is equal to the task, he is referred to the appropriate union for clearance under the closed shop agreement in effect. Shortly, he goes to work on a 30- to 60-day temporary union permit which waives certain union fees or dues until the job becomes permanent. (Five Portland unions now waive initiation fees for honorably discharged service men. The Machinists Union even gives them a set of tools.)

• **Readjustment Problem**—The shipyards also have counsellors who periodically call upon the veterans, or their foremen, to see how they are getting along. But despite the careful screening, there are many who can't or don't want to meet the problems of industrial life.

Les Randall, who is in charge of replacement in the three Kaiser shipyards, also blames the trials of readjustment.

"Many of them are just out of the armed services," he explained, "and they are unsettled. The grass always looks greener in the other fellow's yard, so many quit for what they think are easier and better jobs. Many of the veterans who quit come back to us in a few weeks."

• **Many Too Nervous**—But many of the job changes are due to physical or mental reasons.

For example, at the Albina Engine & Machine Works, a 22-year-old former sailor, whose eyes were injured by the flash when a Jap plane exploded on the deck of his ship in the South Pacific, attempted to take up welding. His weakened eyes could not stand the strain, so he was shifted to shipfitting.

Then there are hundreds of others whose nervous systems are not tuned to the noise, action, and excitement of the shipyards.

• **Examples of Adjustment**—But there are many cases of excellent adjustment: A former paratrooper now is a sheet metal worker at the Kaiser Vancouver yard, and likes it. A former tail gunner, who survived a crash in which all his companions were killed, is a guard. A sailor whose lungs were burned by gases from a smoke screen in the battle of the Coral Sea now drives a truck.

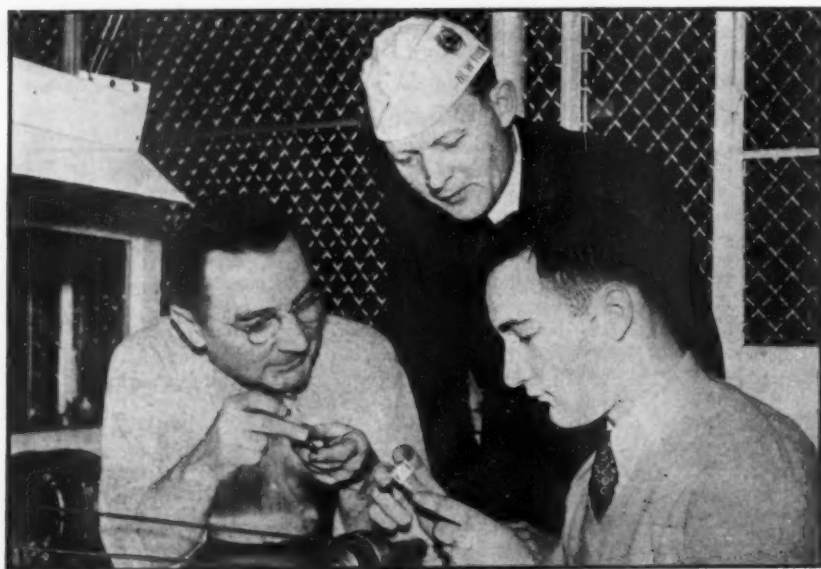
DO THEY WANT THE OLD JOB?

One of the knottiest postwar problems facing employers is how they're going to find places for former em-



JOBS FOR VETERANS

With more than 1,000,000 service men already mustered out, industry is tackling the rehabilitation of veterans in the midst of war (BW—Jan. 22'44, p22). One concern with a special program is New York's L. E. Waterman Pen Co., which put to work its first new veteran recently—under the eyes of William Lewis, state American Legion commander (below). Under this setup, veterans are hired at \$24 a week and assigned to training work beside experienced employees in the pen-point grinding and polishing department (left). Those who qualify move into regular jobs.



MEMO NO. 1 FROM POMONA PUMP'S DATA BOOK

The importance of pump power to YOU!

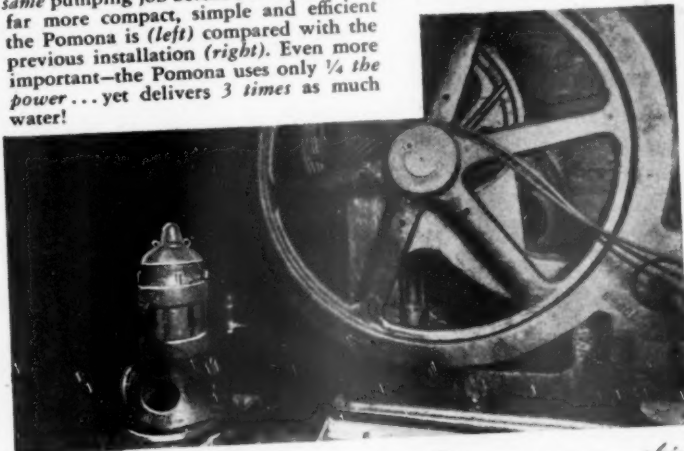
IN war—and peace—pump power is about as important to man as water itself. Wherever man exists there must be water. And wherever there's water there must be some means of lifting and moving it. That's where pumps fit in... *for pumps POWER water!*

They lift water up out of the earth to nourish crops. They push rivers

over mountains to supply cities. They feed water into the boilers of giant power plants... or through complex chemical operations... or through vital food processes. *In short, pumps are one of the most basic requirements of modern civilization!*

So regardless of what you do or make, pumps probably play an important part somewhere—and it's wise to know some fundamental facts about pumps...

FOR EXAMPLE, there is a great difference in pumps. This photo shows the same pumping job before and after a Pomona Pump took over. Note how far more compact, simple and efficient the Pomona is (left) compared with the previous installation (right). Even more important—the Pomona uses only $\frac{1}{4}$ the power... yet delivers 3 times as much water!



This is typical of the savings Pomonas are making wherever water is pumped - the world over!

Pomona Pumps are one of the many types of mechanical, hydraulic and electrical power equipment produced by Hendy Divisions. Other products include Hendy steam turbines and Diesel engines, Westco pumps, and Crocker-Wheeler electric motors and generators.

POMONA PUMP DIVISION

JOSHUA HENDY IRON WORKS

ESTABLISHED 1856

POMONA, CALIFORNIA

Branch Offices: BOSTON • BUFFALO • CHICAGO • CINCINNATI • CLEVELAND • DETROIT • NEW YORK • PHILADELPHIA • PITTSBURGH • SAN FRANCISCO • ST. LOUIS • WASHINGTON • LOS ANGELES



Hendy
Products



Quick Facts

FOR WAR AND POST-WAR PLANNERS

Whether you plan the installation of pumps for farm, industry, mining, marine, municipal or any other use, be sure to check on the many important advantages Pomona Pumps offer...

• **POMONA PUMPS REQUIRE NO PRIMING.** Their unique vertical design eliminates need for priming and for complicated, costly priming equipment.

• **POMONA PUMPS REQUIRE LESS SPACE.** Pomonas require as little as $\frac{1}{8}$ th the space of other-type pumps... a vital saving wherever space is a factor!

• **POMONA PUMPS USE LESS POWER.** 90%—and higher—pumping efficiencies are not uncommon with Pomonas!

• **POMONA PUMPS ARE TROUBLE-FREE.** Fully water-lubricated, Pomonas have no oil or grease tubes to leak or contaminate water supply!

• **POMONA PUMPS ARE ADJUSTABLE.** No need to adjust pump capacities by wasteful throttling of flow. Pomona capacities are adjustable to requirements, with proportionate savings in power!

There are many other Pomona advantages. Send for descriptive literature.



Where Linotype Operators Have Green Thumbs...

**Yes, and so do
pressmen, engravers,
stereotypers,
reporters,
advertising salesmen
and editors**

GREEN THUMBS (the ability to make things grow) abound in profusion among members of The Journal's staff.

Some of the finest flower collections and victory gardens in Portland, Oregon are owned by Journal employees. One linotype operator has over 100 choice rose bushes gathered from the world's far corners. Another exhibits several roses of his own origination. A photographer is famed for his pansies and his squash. An engraver has amazed experts with his bearded iris. An editor favors roses and tomatoes; a reporter, peonies and peas; a stereotyper, primulas and pumpkins.

What does all this mean to Journal readers and advertisers?

Why should it matter that the hands that set the headlines have created a new rose?

LOOK AT IT THIS WAY! The Journal is the largest daily newspaper in the Portland Trading Zone. More people read and enjoy it than any other newspaper in this territory because The Journal is a human paper. The men and women who make it are human... they like to work hard and play hard, just like the folks who read The Journal. But, also, they are blessed with green thumbs—the ability to make things grow, BOTH flowers and newspapers.

If you lived in Portland you'd read...

THE JOURNAL
PORTLAND, OREGON

Afternoon and Sunday

Represented Nationally by **REYNOLDS-FITZGERALD**
Member: Metropolitan and Pacific Parade Groups



employees discharged from the armed forces, as required by Section 8B of the selective service law (BW—Apr. 14, p82). For that reason, two recent indications on how many ex-service men and women want their old jobs back have aroused more than ordinary interest.

The first was a survey made by the Genesee County (N. Y.) branch of the Committee for Economic Development. Of 3,000 questionnaires sent to members of the armed forces from the county, 1,034 replies were received. Of these, 546 (or 53%) said they wanted their old jobs back.

The second was an announcement by New York City Selective Service Director Arthur V. McDermott that, of the 1,200 to 1,500 veterans returning to civilian life each month in New York City, only about 40% go back to their old jobs. His estimate was based on the response to letters from his office which offer assistance to each discharged veteran.

About 30% take no advantage of the offer, and McDermott assumes a large majority of these go back to their old jobs. Of the 70% that do get in touch with headquarters, only about one in seven, or 10% of the total, want to go back to their prewar positions.



X-RAY TIME SAVER

Portable X-ray machines are cutting the turnaround time of damaged planes at American Air Service Command bases in England. By setting the camera and plate on opposite sides of engine or airfoil sections, mechanics can inspect internal members without removing the outer "skins."

the arm
ion 8B
-Apr. 1
recent
service
jobs
ordinary
de by
ch of
elopment
member
e comb
Of these
ted their
incent
Service
ott that
s return
in New
back to
as based
from his
each di-
tage of
umes a
to their
get in
about
l, want
ions.



MAYBE it would surprise you to see what the girls can accomplish these days! And with little or no help from the stronger sex!

Figure the time, for example, it would take three husky men to move a pile of castings from here to there *without* a Barrett Lift-truck! And don't overlook the piling and repiling!

Yet, the entire load can be moved as a *unit* with a Barrett—and with surprisingly little effort. Even the heaviest loads are

moved swiftly, safely and efficiently with a Barrett Lift-truck on the job.

If you still question the ability of women to pinch-hit for the boys at the front—to "man-handle" these heavy loads with ease, we suggest you call in a Barrett engineer. He has some interesting—and pleasing—facts for you.

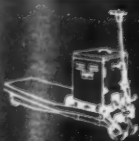


Your copy of the Barrett Junior Catalog will be sent on request.

BARRETT-CRAVENS COMPANY
3260 West 30th Street • Chicago 23, Illinois
Representatives in All Principal Cities

BARRETT

ONE MAN DOES MORE THAN 3 OR 4 ... WITH A BARRETT LIFT-TRUCK



**Barrett
Handling
Equipment**



ing
ged
m-
ng
ite
e-
rs

Trucks Speeded

U. S. freight consolidation station in Chicago adds subdepot to cut waiting time of vehicles at main terminal unloading bays.

Freight traffic has been rising steadily at Chicago's Army-Navy Consolidating Station ever since it was established (BW—Aug. 14 '43, p. 34). Purpose of this unit is to expedite shipment of supplies for all U. S. military services by consolidating and rerouting less-than-carload shipments destined for other military distribution centers, camps, and points of embarkation.

• **New Records Set**—Capt. Reed Titus, formerly vice-president of the Central Forwarding Co., Chicago, is the Army Transportation Corps officer in charge of the station. Recently he announced new records for speedy handling of supplies through the establishment of a subdepot to handle the small truckloads that once cluttered up the main terminal.

Freight from suppliers within a 500-mile radius east and south of Chicago pours into the huge terminal at an average daily rate of 30 to 40 freight carloads and 260 truckloads.

• **Complex Problem**—The problem is complex because officers receive no advance warning of how much freight to expect.

Some of this freight is trucked under contract to military establishments in the Chicago area by the American Transportation Co. But most of it is sorted

and allocated to 140 outbound freight cars in average loads of 40,000 lb. Of this, 80% goes west or southwest, 20% east.

Labor and equipment are provided under contract by the Chicago Junction Railroad, but all operations are supervised by the Army Transportation Corps.

Last December, the station handled 95,000,000 lb. of freight—twice as much as during the previous June when it had earned the distinction of being the largest freight forwarding operation in the world.

• **Unloading Speeded**—The truck section of the station comprises a substantial installation of mechanical handling equipment, and truck bays for 46 trailers. A force of 400 civilians keeps the plant operating 18 hours a day, seven days a week.

Truck traffic formerly was far beyond the comfortable capacity of the plant. With 80% of each day's 2,000 tons of inbound freight arriving by truck, it was not unusual to find 30 or 40 trucks lined up and awaiting unloading for as long as two hours.

By the end of February, waiting time had been cut to twelve minutes, thanks to the establishment of a subdepot consisting of four docks leased from the Denver-Chicago Trucking Co.'s terminal 15 blocks away.

• **Facilities Expanded**—Now truckloads of less than 3½ tons are routed to this subdepot, where a crew of ten dockmen reloads a daily average of 85 trucks, about 100 tons of freight.

Truck accommodations at the main terminal have been expanded by adding a new parking lot for 125 trailers.

Arms for Liberty

Thousands of pistols and revolvers collected and repaired in U. S. to help arm patriots of Europe in fight for freedom.

Small arms by the thousands are coming from under pillows and out of bureau drawers in American homes to fight for freedom, arming patriots in conquered Europe against the day when the oppressed peoples can strike a blow for their own deliverance.

• **Agents Scour the Country**—The story is still muffled by censorship, but it can be told that the Cleveland firm of Greenwald & Haughton, holders of a national contract with the purchasing mission of an Allied government, has sent agents over the country offering from \$5 to \$30 for these "bureau drawer specials." Some police departments thus have sold obsolete pistols for \$25 and replaced them with the Victory models of American manufacturers at \$28.

These Victory models are available in limited numbers for necessary home defense through the Defense Supplies Corp.

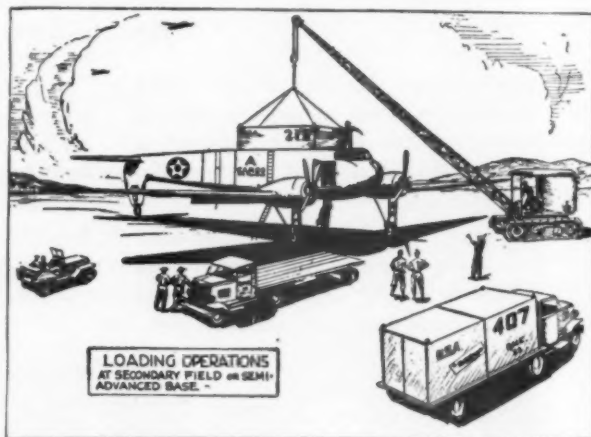
• **Guns Are Reconditioned**—Official accounts of the purchasing activity shy from the inescapable conclusion that the guns are being smuggled into the European underground.

The demand formerly was for automatic pistols only, but in recent months revolvers have been accepted. The contractors are required to recondition and test the guns before shipment. The ex-



AIR CARGO EXPDITER

Future cargo planes may haul freight in removable compartments similar to those used by some railroads. In this adaptation, an air carrier could be



loaded or unloaded quickly with the cargo-filled container that's actually a fuselage section. This would be done by overhead crane (left) at permanent installations, by mobile derrick (right) at temporary bases. Earl McKaughan,

president of Aviation Enterprises, Houston, Tex., is the inventor of the container which requires redesigning planes to invert tail assemblies. He plans to use it on a web of proposed postwar feeder airlines.



You are the Hope of the World

Not in the Halls of Congresses
and Parliaments—

Not in the Staff Rooms of Generals
and Admirals—

Not in the meeting halls of societies
and organizations—

It is in none of these places that a
great new world will be fashioned
and grow to new greatness.

It is in *your* home . . . *your* living
room—in your mind and in your
heart. *Yours* is the strength that
must set the world aright.

Yes, *you* are the hope of the world.

A wiser, broader-visioned, more un-
derstanding you.

A you of vision and the capacity
for greatness . . .

A you who knows the ways of hu-
man beings . . . people of this land
and other lands . . .

Who hears the news . . . the music
and the drama of the world.

Who hears its laughter and its sobs
—who understands the work and
the games of everywhere.

A *you* who knows the aspirations
and ambitions and strivings of others
like yourself—folks who speak a
common language of dreams and
longings . . . and have the will and
the wit to make dreams into realities.

Yes, it is *you* who are the hope of
the world.

For no home, no village, no nation
and no world can be more great or
noble than the individuals who
people it . . .

* * *

No American can look to the
future without a deep and sober
regard for the children of America

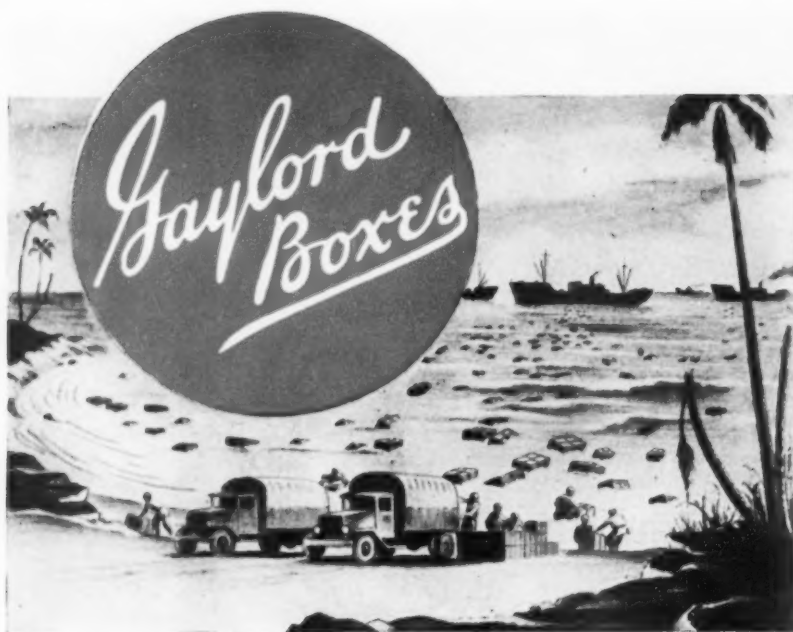
. . . his children . . . citizens of the
future.

The Blue Network and its affiliated
stations have taken this important
audience with great seriousness.
Thus, it is no accident that children
are offered a wide variety of good,
wholesome entertainment—the Blue
Playhouse . . . the entertaining and
instructive Quiz Kids . . . the pure
adventure that is part and parcel
of every child's ambitions . . . Terry
and The Pirates, Dick Tracy, The
Sea Hound, Jack Armstrong, Hop
Harrigan, Captain Midnight, The
Lone Ranger, Storyland Theatre,
Land of the Lost, Coast to Coast
on a Bus.

It's radio for all people of all ages
. . . on "The Blue"—great music,
complete, accurate news, great ring-
ing forum, pure drama, adventure,
variety, comedy! Listen, America!

THIS IS THE *Blue* NETWORK

AMERICAN BROADCASTING SYSTEM, INC.



The Gaylord "Extra Margin of Safety" Was Never More Vital

CORRUGATED
AND SOLID FIBRE
CONTAINERS

FOLDING AND PAR-
AFFINED CARTONS

KRAFT PAPER BAGS
AND SACKS

KRAFT
WRAPPING PAPER
AND SPECIALTIES

When boxes of military supplies are tossed overboard to float ashore with the tides, boxes *must* be of the sturdiest construction to carry their vital contents through safely. As the War Effort calls on Gaylord for more and more boxes to deliver supplies to the fighting fronts, Gaylord's customers, too, are sharing in this effort by accepting curtailments for civilian uses.

BUY MORE WAR BONDS

GAYLORD CONTAINER CORPORATION

General Offices: SAINT LOUIS

New York • Chicago • San Francisco • Atlanta • New Orleans
Seattle • Tampa • Detroit • Portland • Los Angeles • Indianapolis
Houston • Minneapolis • Dallas • Jersey City • Appleton • Oakland
Memphis • Fort Worth • Cincinnati • Oklahoma City • Greenville
Columbus • Jacksonville • Des Moines • Kansas City • Milwaukee
Bogalusa • Weslaco • St. Louis • Hamden • San Antonio



Weapons of virtually every make and vintage are collected and repaired in Cleveland for delivery to European underground patriots who will and fight when the invasion begins.

planation: If the gun should fail once the user probably would never get another chance to fire it.

• **Many Thousands**—No official totals of purchases are disclosed, but the numbers are well in the thousands. Current moving through the repair arsenal are guns from the German works of Lueger, Ortgies, Dreyse, Walther, and Mauser. Spanish and Italian makes are fairly numerous, but the bulk is made up of such standard American makes as Colt, Savage, Remington, Smith & Wesson, and Harrington & Richardson. The arms are packed, with a cleaning rod, for transportation in oiled paper.

• **Prices Are Inflated**—Reason for soaring guns from pawnshops, homes, collections, clubs, and police departments was the desire to employ an otherwise unused resource, thus not disrupting arms production schedules for the services, and to conserve materials. Cost to the purchasing government will average considerably higher than the price of new weapons, although there is an effort to discourage the inflated private market that has made a .45 Colt, model of 1911, which sold for \$10 four years ago, bring \$50 or upwards today.

"LOWEST RATE" IS DEFINED

In application of land grant freight rates (BW-Mar.25'44,p19), the Supreme Court held this week, the government is entitled to the lowest rate that can be figured out, regardless of how circuitous a route may be required for that lowest rate to apply.

Southern Railway Co., which lost by a unanimous decision, argued unsuccessfully that the term, "lowest rate," should be defined to apply on reasonably direct routing.

Battle of Fish

New England and Pacific Northwest fishing industry beset by strikes, black market, OPA troubles, and allocation threat.

Two OPA price ceilings on fish that have been causing trouble in New England and the Pacific Northwest got during this week before a congressional committee, shedding light on a black market which Coordinator of Fisheries Harold Ickes hints may be checked only by allocation of fish. Members as allocation would be, its opponents have unwillingly pushed it in the stage of a formal draft now being considered.

Strike in Seattle—Biggest immediate problem is the strike of about 180 halibut boat crews in Seattle, mainly Scandinavians, who are puttering with gear instead of fishing. With 175 Alaska halibut boats and 100 from British Columbia, they normally set out Apr. 15 to catch the 52,000,000 lb. of halibut that international treaty permits annually.

Trouble started last July when OPA set a 17½¢-a-lb. ceiling on prices paid to primary U. S. wholesalers to fishermen at Seattle and Prince Rupert, B. C. hitherto, Seattle prices were 2½¢ higher than Canada's. The result of the uniform 17½¢ ceiling was that boats unloaded in Prince Rupert, about two days closer to the fishing grounds. They could thus turn around quicker and make more trips.

OPA Cuts Prices—But Seattle dealers and consumers south along the coast were angry because they had no halibut shipped in bond from Prince Rupert, where halibut was going to other markets.

To meet this situation, OPA cut prices 2½¢ at Prince Rupert Apr. 16—which made fishermen strike, claiming that the actual effect is a rollback which reduces their income. They perhaps had another canny idea in mind—that of freezing out the competition of sardine boats which come up from California ports to share in the short halibut season before sardines start to run in August.

Fish Needed Now—A strike now, they hoped, would send the sardine crews home and leave all the halibut quota to the bigger schooners. The sardiners are organized and supposedly wouldn't help break a strike. Government fish experts didn't expect the strike to last all summer, but deplore the waste of manpower in an industry whose production is so much needed in wartime when meat is rationed and fish is badly needed as a



THEY NEEDED THIS BRIDGE

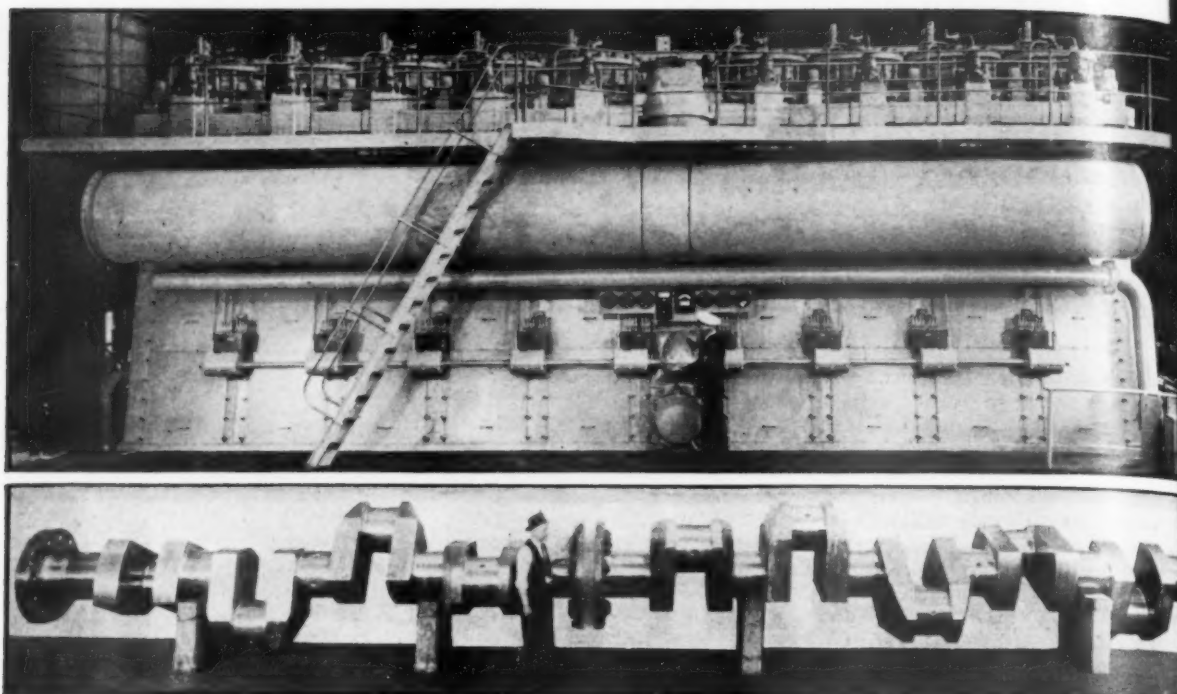
QUICK!

SOMEWHERE in Italy this American armored division safely crosses a stream on a treadway bridge supported by Michaels Trestles. Wherever and whenever the need arises, army engineers and Michaels Trestles get on the job in a hurry to erect bridges sufficiently sturdy to carry heavy mobile equipment over shallow streams, or up to ponton bridges where deep rivers must be crossed. ¶ Today the entire resources of the Michaels organization are devoted to the construction of Bridge Trestles, V-Type Marine Pier Trestles, and extremely accurate devices for important weapons. When the war is won, Michaels will resume the manufacture of Time-Tight Exhibit Cases, Bronze Tablets, MI-CO Parking Meters and other products of ferrous and non-ferrous metals.



The MICHAELS ART BRONZE CO., Inc.
COVINGTON, KENTUCKY

Manufacturers since 1870 of many products in Bronze, Aluminum and other Metals



VICTORY POWER

Rated at 6,000 hp., the first big diesel engine designed for a Victory ship has just passed Navy and Maritime Commission tests with top honors for good

behavior. Built in the Milwaukee shops of Nordberg Mfg. Co., the nine-cylinder giant was run nonstop for 15 days at full speed, stepped up to a 10% overload for another two days, then pushed to 25% overload for a

grueling two hours. Slated for a Victory ship to be completed late this summer, the big unit, which has a 40-in. bore, a 40-in. stroke, and can attain 160 r.p.m., is reported to be the fastest runner of like units for the same

substitute for it. OPA is sitting tight.

• **New England Troubles**—The other angry area is in the flounder and cod ports of New Bedford, Gloucester, and Boston, Mass., where old-time wholesalers and newly established dealers have been fighting for several months. In New Bedford, several old-time dealers had been operating on a small margin, as low as 1¢ for the larger operators. Then OPA made an over-all study with industry consultants and granted a 2¢ margin. This margin, together with lower operating costs in the area, attracted a large number of new operators. The established dealers raised a howl.

• **Couldn't Get Fish**—William D. Eldridge of L. S. Eldridge & Sons, Inc., one of the big old-time companies, testified before a subcommittee of the House Committee on Merchant Marine & Fisheries that the old firms were about ready to shut up shop. Auctions became a farce, he said, and established dealers couldn't get fish.

To try to ease this situation, OPA has lowered the margin 1¢ on flounder-type fish, the principal type in the New Bedford market. It is too early to determine the result of this move, and there are still other problems.

The black market has spread like

gasoline on water. Midwestern fish handlers, for example, who had been doing business with the old New Bedford companies, now unable to get fish, had to make arrangements with somebody else. Increased demand for fish made nearby sales so easy that even cities as close as Philadelphia had difficulty buying fish in New England. Scarcity was another incentive to black markets.

• **Seeks Orderly Program**—In Washington, Rep. J. Hardin Peterson of Florida tried to bring OPA, War Food Administration, and Ickes' Fish & Wild Life Service together on a program to restore an orderly market and protect consumers against black market prices.

• **Many Objections**—Arguments, meanwhile, were piling up against an allocation system: It would be complicated and difficult to administer; it would upset the distribution system; it would be a deterrent to initiative so necessary in an industry of this type.

CANNERIES RESTRICTED

Salmon canneries of the Alaska and Puget Sound (Wash.) areas have been notified that, beginning with the opening of the 1944 season, canning opera-

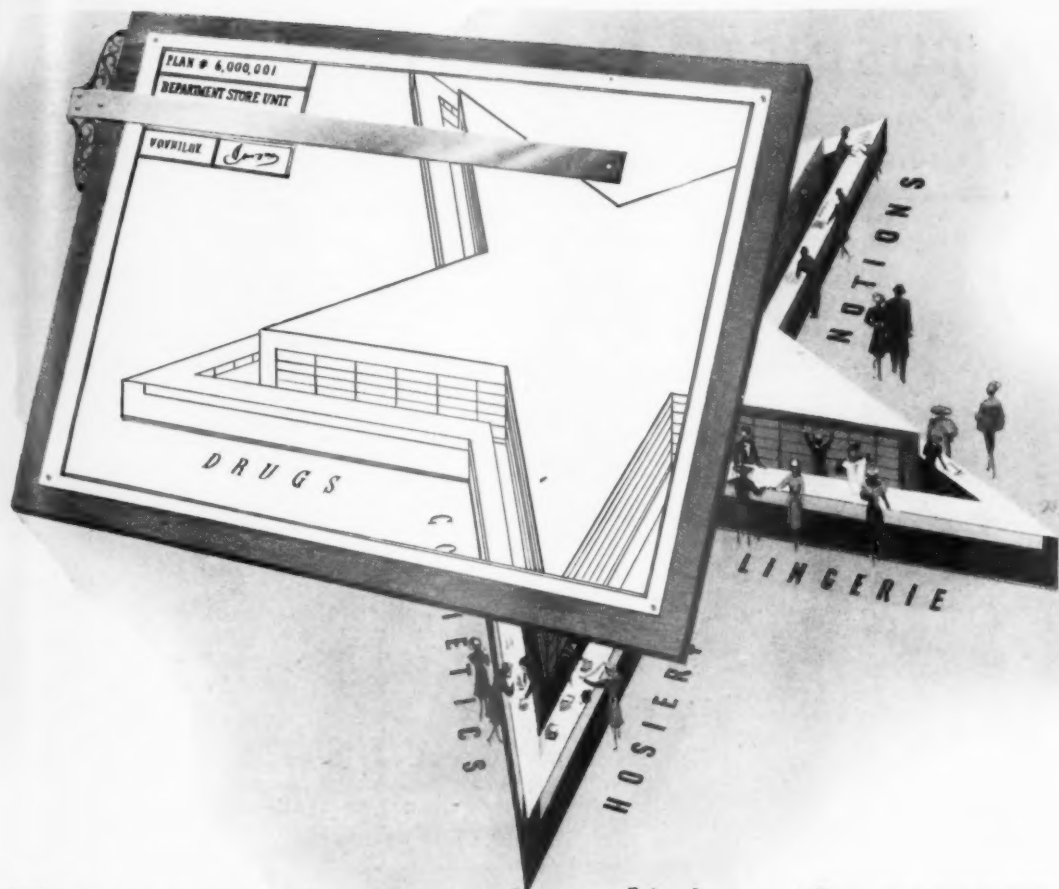
tions will be concentrated in the most efficient plants. The order was issued by the office of Harold L. Ickes, Coordinator of Fisheries.

This will be the second year of concentrating canning to conserve scarce materials, equipment, and manpower (BW—Mar. 13 '43, p. 18). Alaska normally produces about 90% of this country's supply of canned salmon.

This year, 89 Alaska canneries, out of a total of 119 plants, will be permitted to operate. Last year's operations were confined to 77 plants. In the Puget Sound area, one plant, Anacortes owned by the Fishermen Packing Corp., will be operated this year instead of nine, but two other canneries owned by independent operators (those not under the concentration plan) will pack during the season.

Distribution of the pack will be based on the five-year average production of each of the canneries operating under the consolidation program.

While the labor allocations for the 1944 Alaska canned salmon will amount to 12,699 men, an increase of 10%, the concentration plan is expected to result in a manpower saving of 500 workers and to release 27 cannery tenders in the Puget Sound area.



Tomorrow's Merchandising Successes *are on Architects' Drawing Boards* **TODAY**

our competitors are doing it—planning to make their post-war stores so beautiful and comfortable that they'll attract an even larger share of the trade. Undoubtedly you're doing it too—or expect to.

Modern air conditioning is a "must" in such plans. For customers have come to expect it. They naturally tend to patronize the most attractive—the most comfortable stores.

Modern Air Conditioning means

Westinghouse—and its years of pioneering research and engineering experience.

For essential war uses in factories, hospitals, airports, military bases, etc., Westinghouse Air Conditioning and Industrial Refrigeration Equipment is available today.

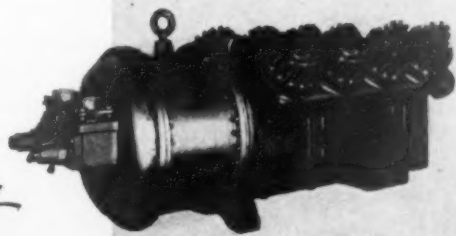
For executives, architects and engineers now planning post-war building and modernizing, dependable data and competent application engineering assistance are ready.

Phone your nearest Westinghouse office, or write on your letterhead to Westinghouse Electric Elevator Company, 150 Pacific Avenue, Jersey City 4, New Jersey.

HERMETICALLY-SEALED FOR DEPENDABILITY

Westinghouse pioneered the Hermetically-Sealed Compressor. Hermetically-sealed means light weight • small size • low maintenance and operating costs • high efficiency • long life.

Westinghouse *Air Conditioning*



WAR BUSINESS CHECKLIST

A digest of new federal rules and regulations affecting priorities and allocations, price control, and transportation.

Increased Civilian Supply

Restrictions on the use of zinc in padlocks are removed by an amendment to Schedule I of WPB's Order L-236, which allows the manufacture of certain sizes of padlocks formerly prohibited. . . . WPB Order L-23-c, as amended, permits production of five models of fuel oil circulating stoves instead of two, and provides that domestic cooking stoves may again be made with storage compartments. . . . Brush manufacturers now have access to limited quantities of dressed domestic bristles, 2½ in. to 4 in. long, held in stockpile by Defense Supplies Corp.; application for these bristles, suitable for long-handled sash tools, artist brushes, high-grade varnish brushes, and barber brushes, should be made to WPB before May 4. . . . Set-aside requirements on roller dried skim milk, used to enrich bakery products and soups, are reduced from 75% to 50% of monthly production by an amendment to Food Distribution Order 54.

Relaxation of Priorities

Thanks to increased production of zein, substitute for shellac (BW—Feb. 12 '44, p50), and to improved supplies of shellac itself, restrictions on zein have been removed by WPB by revocation of Order M-320. . . . More liberal allocations of tung oil are promised by War Food Administration for military and essential civilian uses, beginning May 1. . . . Through amendment to Preference Order M-156, the quantity of tantalum which may be delivered without authorization from WPB has been increased from one ounce a month to three kilograms. . . . Concentrated citrus juices, used principally by beverage makers and other industrial users, are freed from ration control by Amendment 26, Revised Ration Order 13. . . . WPB restrictions on black walnut logs are removed by revocation of Order M-358.

Construction

Public highway and street construction controlled by a federal, state, or other government agency is taken out of WPB Order L-41 and is made subject to a special Order L-41-c. Following highway projects may be started without WPB authorization: those costing \$5,000 per mi. or less, if total cost is not more than \$25,000; those costing \$10,000 or less; those giving access to sources of raw materials under the Highway Defense Act of 1941, upon WPB certification; construction owned by specified agencies. All others—except maintenance and repair—must have specific WPB approval.

Restrictions on certain railroad construction jobs—tunnels, overpasses, underpasses, and bridges—are removed when materials cost \$2,500 or less. Materials for such con-

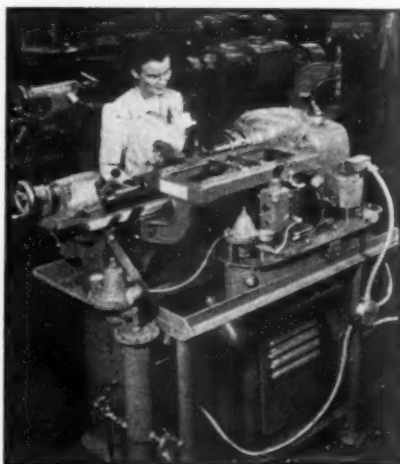
struction may be obtained under Preference Rating Order P-142, as amended. Non-operating railroad buildings, such as stations and loading platforms, remain subject to Order L-41.

Machine Tools

Revision of the OPA order covering secondhand machine tools establishes an alternative pricing method for tools purchased new after Mar. 1, 1941, which are now coming on the market as secondhand tools. The selling price is a percentage of the price when new, the percentage to vary with the age and condition of the tool. Weekly rentals are given maximum prices by this action, which also provides that when total rental is less than \$5 for a period of time, the maximum total rental shall be \$5. (Amendment 4, Regulation 1.)

Ethyl Alcohol

Under the recently announced government program to build up the Ethyl alcohol supply from the surplus potato crop (BW—Mar. 25 '44, p64), the cost-plus pricing



AUTOMATIC MACHINIST

A new attachment for lathes and vertical boring mills makes apprentices the rivals of master machinists in turning intricate contours and boring parabolic curves with repeated accuracy. Developed by Cleveland's Bailey Meter Co., the controller combines principles of the precision air gage and hydraulic pistons to set automatically the cutting tool positions which normally require great skill.

formula already provided by OPA for alcohol produced from grain will be used by manufacturers who process industrial ethyl alcohol from potatoes. Part of the cost of potatoes is to be borne by the government or its agencies, and the Defense Supplies Corp. has agreed to purchase the alcohol produced in whole or in part from the potatoes released by the government for this purpose. (Amendment 6, Regulation 1, Amendment 7, Regulation 29; Amendment 4, Order 108, Section 1499.3(b) of General Max.)

Tires and Tubes

Revised retail and wholesale ceiling prices will be placed on new tires and tubes of synthetic rubber on May 1 by an OPA action affecting the whole ceiling price structure for the tire and tube industry. The action covers tires for passenger cars, trucks, buses, trailers, industrial equipment, off-road equipment, farm implements, tractors, as well as natural rubber, used, and recycled tires. Prices at retail for passenger-car tires will be about 9% above the November 1941, list prices for natural rubber tires as original equipment for new cars, but will be, generally, 6% lower than the temporary ceilings for synthetic rubber products. Dollar-and-cents margins for dealers on both passenger and truck tires will be at least as great as those formerly prevailing. Three regulations—Revised Price Schedule 63, RPS 66, and Maximum Price Regulation 107—are revoked by the new rulings. (Regulation 52, Revised Regulation 143.)

Truck Tires

Certain sizes of new tires are now available to small essential trucks, delivering essential foods, laundry, drugs, medical supplies, dry cleaned apparel, and trucks operated by medical or dental laboratories, which hitherto have been eligible for only used tires. Used tires are available to all small trucks and other commercial vehicles. Tires for this purpose have been released by the Office of Rubber Director for distribution by OPA to meet the requirements of the Office of Defense Transportation.

Fuel Oil

Application forms to be mailed in June to all consumers for next season's fuel oil rations show only minor changes from last year's rationing program. Heating and hot water rations will generally be the same in the 1944-45 season as those issued for 1943-44, except that all oil and kerosene heating stove rations will be reviewed, and the allowance for these stoves, based on a maximum floor area of 550 sq. ft. per stove, will be reduced if no decrease has been made before. Minor revisions have been made in the application forms, and ration coupons will be valid until the end of the heating year, Aug. 31, 1945.

Modified Machines and Parts

Manufacturers of machines and parts that have been altered—as by a shift from use of natural to synthetic rubber tires—

PA for all
used by ma
ethyl alcoh
cost of
e governm
use Supp
the alia
from the
ment for
regulation
Amending
of Gene

eling pro
nd tubes
y an O
price str
istry. T
ars, trac
nt, off-
ts, tract
d recapp
er-car fi
November
r tires so
s, but w
tempora
ts. Doll
th pass
is great
regulation
66, an
-are a
tion 52

ow avail
ering u
ical sig
ks oper
s, which
ly used
all small
Tues
by the
tion be
Office

June
tel oil
m last
d hit
me in
1943
ating
the
man-
will
made
made
poning

arts
rom
cs-
44



Time-saving office "machine-tools" — one way to lick your manpower problem

To keep production high while continuing to release men to the armed forces

... this is a task which calls for thorough planning and intelligent control of the manpower still remaining. To this task, Remington Rand Punched-Card Accounting and Tabulating Machines are making an outstanding contribution. In record time they turn out great masses of figures and management reports, the basis for fast, accurate executive decisions. They help achieve, in both factory and office, the most efficient use of the manpower available.

A conspicuous example: a compact battery of these machines, at work on production control in the factory of a leading radar manufacturer, has so speeded the flow of materials that 8,500 workers are meeting production schedules originally set for 11,000.

Another "case-history": a famous submarine builder, who prided himself on a payroll department comprising one employee for every 100 production employees, adopted Remington Rand Punched-Card Accounting. Today, preparation of the weekly 11,000-name payroll requires not 110 payroll department employees, but only 14.

We are proud that we were ready to contribute to the solution of industry's manpower problems, with advanced engineering in our products, and with our nation-wide staff of specialists experienced in office methods and control systems. These methods engineers have already helped hundreds of war plants combat shrinking manpower by saving man-hours. They can help you...call our nearest office to arrange for a demonstration of Remington Rand Tabulating Machines.

For LEADERSHIP IN
PUNCHED-CARD ACCOUNTING, look to *Remington Rand*



"..leaving for Dementia, Delirium, Melancholia and points west!"

Is that where your train of thought is going, Mr. Office Manager? Tear up your ticket—while there's still time! Oh yes, you can. Even though the problems and traffic jams of a wartime office are giving you insomnia, perhaps the pressure can be relieved a bit. And we know just the man to do it—

**ART METAL'S
"MR. EXPEDITER, O.D."**

The genial doctor—"O.D." means "Doctor of Offices"—is a wonder at straightening out office tangles—saving time, tempers and money. Of

course, he can't do a 100% job while equipment he prescribes is unobtainable in wartime . . . but he's sure to make some valuable suggestions.

AND, when it comes to planning your postwar office layout and system, Art Metal's Mr. Expediter is definitely the White-haired Boy. Why not have him in—*now*—for a chat? And get a copy of his book "Office Planning." Simply call your local Art Metal branch or dealer, or write to Art Metal Construction Co., Jamestown, New York.

ART METAL STEEL OFFICE EQUIPMENT

BALTIMORE CINCINNATI
BOSTON CLEVELAND
CHICAGO DETROIT

Makers of
***WABASH FILING SUPPLIES**
**a subsidiary company*



POSTINDEX VISIBLE RECORDS

HARTFORD PHILADELPHIA
LOS ANGELES PITTSBURGH
NEW YORK WASHINGTON



SYSTEMATIZED EQUIPMENT AND RECORDS FOR BUSINESS

may determine the maximum price for their modified products by adding to, or subtracting from, the maximum price of the original machine the increase or decrease in factory costs resulting from any modification of the machine since the base date. Producers of farm equipment are already permitted to pass along increased costs resulting from the use of synthetic rubber tires, and are not subject to this new OPA ruling. Methods to be used in computing net increases or decreases in cost are specified in the amendment. The new prices must be submitted to OPA and, subject to certain conditions, may be put into effect pending OPA approval. (Amendment 113 Regulation 136, as amended.)

Typewriters

New typewriters in the hands of dealers and all used typewriters are freed from ration restrictions by OPA as a result of the improved supply situation; new typewriters in the manufacturers' hands are still subject to WPB controls. Ceilings for sale and rental of used typewriters reestablish prices for dealer-to-dealer transactions at 2/3 of retail ceilings instead of 4/5 of retail ceilings, as hitherto. Retail prices are not changed. (Amendment 9, Ration Order 4A; Amendment 2, Regulation 162.)

Retail Foods

Dollar-and-cents markups at retail on snap beans, peas, spinach, and carrots—the first specific retail markups for any food except fresh fish and seafood—are established per selling unit in an OPA amendment that ties in with prices provided for these foods at other levels early this year. At the same time, eggplant, cucumbers (except hot-house), and coconuts are brought under control for the first time and are given the same type of markup. Sweet potatoes, formerly under a temporary freeze order, have been allowed a 40% markup at retail. (Amendment 14, Regulation 422.)

Butter

To encourage the building up of butter supplies during the peak months of spring and early summer, OPA has promised that wholesalers with storage facilities in centers where butter is customarily shipped will be lent ration points with which to buy butter for storage. Application should be made on Form R-315 to local boards. Applications will be accepted up to July 10; points borrowed are good through July 31.

Milk

To make the most of the May and June output of milk and cream, the War Food Administration has taken action to allow milk dealers in all metropolitan areas established as milk sales areas under Food Distribution Order 79 to sell 100% as much cream and milk byproducts as they sold in June, 1943. At present, their sales are limited to 75% of the amount sold last June. Quotas on fluid milk remain at 100%, but since cream and byproduct quotas are usually transferrable to fluid



Allied Chemical & Dye Corp., General Chemical Co.
Newell, Pa.

American Red Cross
(Two blood donor centers)

Atlas Powder Co.
Webb City, Mo.

Crowe Name Plate & Mfg. Co.
Chicago, Ill.

Caso Pump & Burner Mfg. Co.
Tulsa, Okla.

General Chemical Defense Corp., West Virginia Ordnance Works
Point Pleasant, W. Va.

Gould & Eberhardt, Inc.
Irvington, N. J.

The Hamlin Metal Products Co.
Akron, Ohio

Iowa Mfg. Co.
Cedar Rapids, Iowa

Lewyt Corp.
Brooklyn, N. Y.

Lockheed Aircraft Corp.
Burbank, Calif.

Milwaukee Forge & Machine Co.
Milwaukee, Wis.

Molded Latex Products, Inc.
Passaic, N. J.

Nashua Mfg.
(Two mills)

Pacific Screw Products Corp.
South Gate, Calif.

The Phister Mfg. Co.
Cincinnati, Ohio

Salvay Process Co., Atmospheric Nitrogen Corp., Buckeye Ordnance Works
South Point, Ohio

S. B. Whistler & Sons, Inc.
Buffalo, N. Y.

(Names of winners of the Army-Navy and Maritime Commission awards for excellence in production announced prior to this new list will be found in previous issues of Business Week.)

milk, dealers may distribute their increased allotment of milk in fluid milk, cream, or byproducts, as they wish.

Shortening and Cooking Oils

Thanks to the current supply of shortening and rationed salad and cooking oils, OPA has announced that these products are now point-free. Butter and margarine are excepted. (Amendment 25, Revised Supplement 1, Ration Order 16.)

Following the removal of shortening, salad, and cooking oils from rationing, OPA has reduced by five-sixths the number of ration points allotted to industrial users (such as bakers) to buy these foods in the second quarter. To prevent too great stockpiling, inventory limitations require industrial and institutional users to hold down their supply to a 30 days' stock. (Amendment 131, Ration Order 16.)

Furs

Maximum prices for dressed and dyed Alaska fur seal skins and dressed blue and white Alaska fox pelts have been reduced by OPA in a step to bring retail prices of finished fur garments down to approximately the levels of the fall of 1942. This action covers sales by the Dept. of the Interior of the United States, or its agent, the Fouke Fur Co., St. Louis, Mo., and sales by dealers in the skins specified. (Revised Order 111, General Max.)

Lumber

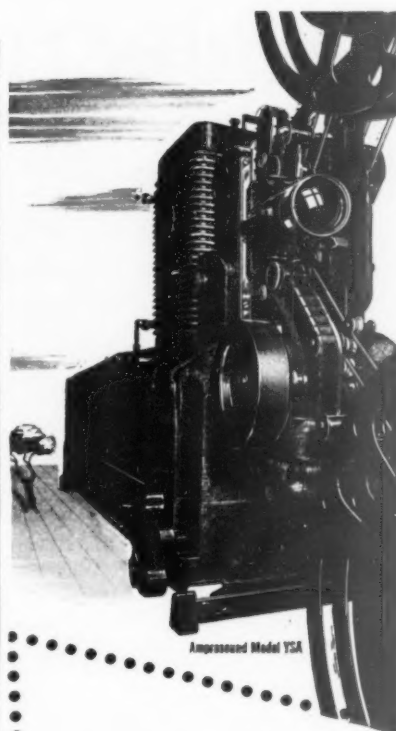
A simplification procedure established by WPB permits mine and smelter operators who hold serial numbers under Order P-56 to obtain restricted southern yellow pine and hardwood lumber by certification of purchase orders instead of by WPB authorization, though either method is acceptable. Certification may not be used, however, in order to get more lumber in a calendar quarter than the amount that was used during the corresponding quarter of 1943. (Direction 6, Order M-361; Direction 6, Order M-364.)

Other Priority Actions

Pine tar, supplies of which are tight, has been placed under allocation for the first time by WPB in a schedule of Order M-300. . . . Sharp restrictions on deliveries of the refrigerant gas, "F-22," especially when used in a system of comfort air conditioning or for storing and dispensing carbonated or malt beverages, are effected by WPB's Order M-28-a. . . . Allocation Order M-300, Schedule 13, has been amended to cover dipentene, used in rubber reclaiming and marine paints.

Other Price Actions

OPA Revised Regulation 504 modifies prices for knitted cotton or mercerized material used in making cotton rugs. . . . Manufacturers and jobbers of upholstered studio couches and sofa beds with steel spring inner constructions are given specific maximum prices by Order 1509, OPA Regulation 188. . . . A revised OPA schedule for sales of specified frozen fish reduces processors' prices by 20% (Amendment 16, Regulation 364). . . . To meet increased war demands for Douglas fir boards and dimension lumber cut in thicknesses up to 2 in., OPA has increased ceilings on several grades and reduced them on some of the larger sizes, through Amendment 7, Revised Regulation 26, and Amendment 4, 2nd Revised Regulation 215. . . . Manufacturers', distributors', and dealers' prices for vitrified clay sewer pipe made in the eastern area may be raised not more than 10% under Amendment 2, OPA Regulation 206; Amendment 32, Order A-1, Regulation 188; Amendment 122, Revised Supplementary Regulation 14. . . . OPA states that ceiling prices for the recently authorized copper ball cocks for plumbing fixtures will be the same as those that were in effect during the summer of 1942, when the items were last produced.



Amprosound Model TSA

A Post-War Reality

talking motion pictures in the home!

They are here now—not in blue prints but in actual production as shown in this illustration—compact, portable Amprosound 16mm. projectors that at the flick of a switch turn your living room into a motion picture theatre. As easy to operate as a radio. Within the reach of any ordinary family budget. Available too, are thousands of entertaining and instructive sound and silent films ★ Of course, every Ampro projector we make TODAY goes to our armed forces for training and entertainment. But TOMORROW all of Ampro's engineering skill and experience will be directed to bringing to American homes, schools and industry the miracle of modern 16mm. sound projection. Write for Ampro Catalog of 8 and 16mm. precision projectors.

★ Buy War Bonds

AMPRO
Precision Cine Equipment
Ampro Corporation, Chicago 18

PRODUCTION

Lofting Expands

Lofted templates, made by photographic process, now are used in manufacture of tools and dies as in finished product.

When the Photoprint Co. changed its name this month to the Template Reproduction Co., with headquarters at 401 N. Broad St., Philadelphia 8, and announced that it was going to conduct its "business as usual in the fields of processing painted and sensitized surfaces, reproducing engineering drawings, and supplying information and counsel relative to Industrial Lofting," it sent a good many to the engineering handbooks for the lowdown on industrial lofting.

• **Important in Shipbuilding**—If, with a good deal of luck, they chanced to hit upon a description of "mold lofting," they got some idea of what lofting has meant to shipbuilding since the earliest times, but little notion, if any, of its present importance to airplane manufacture or its future potentialities in almost any production scheme that uses templates, dies, patterns, tools, or jigs.

Mold lofting in shipbuilding has always meant taking the design or model of a ship to a large room with plenty of clear working space (which formerly could be found only in the loft of a building, hence the name) and drawing full-scale, or exact-size, renderings of the molds, or forms, of various ship parts on big paper patterns or even on the steel plates which form a ship's hull.

• **Scope Is Extended**—Mold lofting, industrial lofting, or just plain lofting, mean considerably more in modern shipbuilding, aircraft manufacturing, and automobile body building, because modern loftsmen have extended the scope of their work to include the design of the tools, dies, and fixtures that will manufacture their various lofted molds.

Though it seems at first thought to be a waste of time, labor, and material to render every component or part or tool in full scale, there are two basic reasons for ultimate, all-over savings in production costs:

(1) Toolmakers, production chiefs, and key workers are brought in at every critical stage in lofting to make sure that each part or tool can be made exactly as designed, that it will fit precisely into the production scheme, and that a given

part will surely go together with mating components in assembly.

(2) Since lofting produces full-size templates on sheet steel, aluminum, plywood, or other stiff material rather than dimensioned drawings on paper or tracing cloth, and the material for the templates is chosen for approximately the same expansion coefficient as the finished product, all dimensions can be lifted directly off the templates without the errors which are too frequently associated with setting measuring instruments to drawing dimensions.

• **Precise Contours**—Instead of laboriously whittling out the contours of automobile bodies, airplane fuselages, foundry patterns, or stamping dies in accordance with the dimensions figures on engineering drawings, the really modern manufacturer establishes the reference

points for the various compound curves with lofted templates, trimmed to exact size, set up on a suitable foundation, and filled with plaster of paris which can be smoothed down to exact contours.

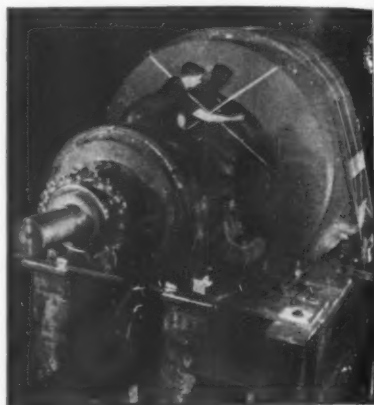
Templates that go to the shop are not normally the originals drafted by the loftsmen, but precise photographic copies made on steel or other materials by contact printing or by cameras so huge that they must be erected as a part of a building.

• **Prefers Contact Print**—Philip Taber, former head loftsmen for Consolidated Vultee who heads the technical staff of Template Reproduction Co., believes that the intervention of a camera lens opens up possibilities of distortion in photographic templates and has keyed his work to contact printing using printing frames and developing tanks for prints as large as 12x5 ft.

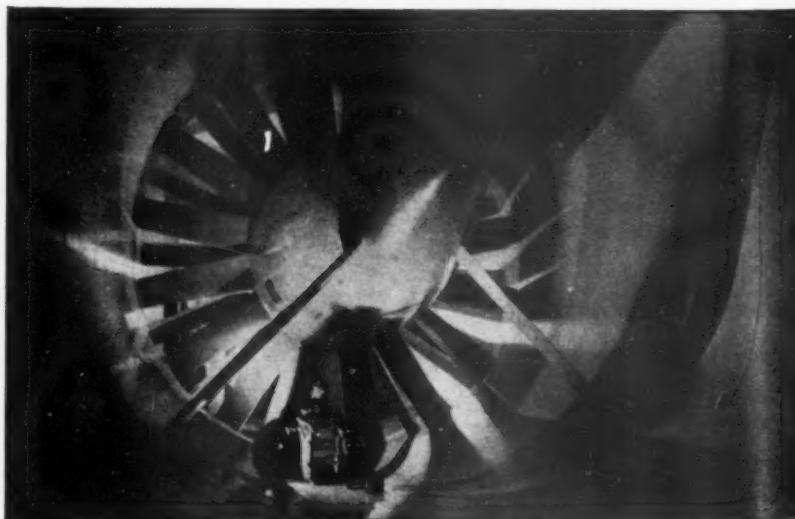
His process, which includes a patented method of applying photosensitive emulsions to large surfaces by means

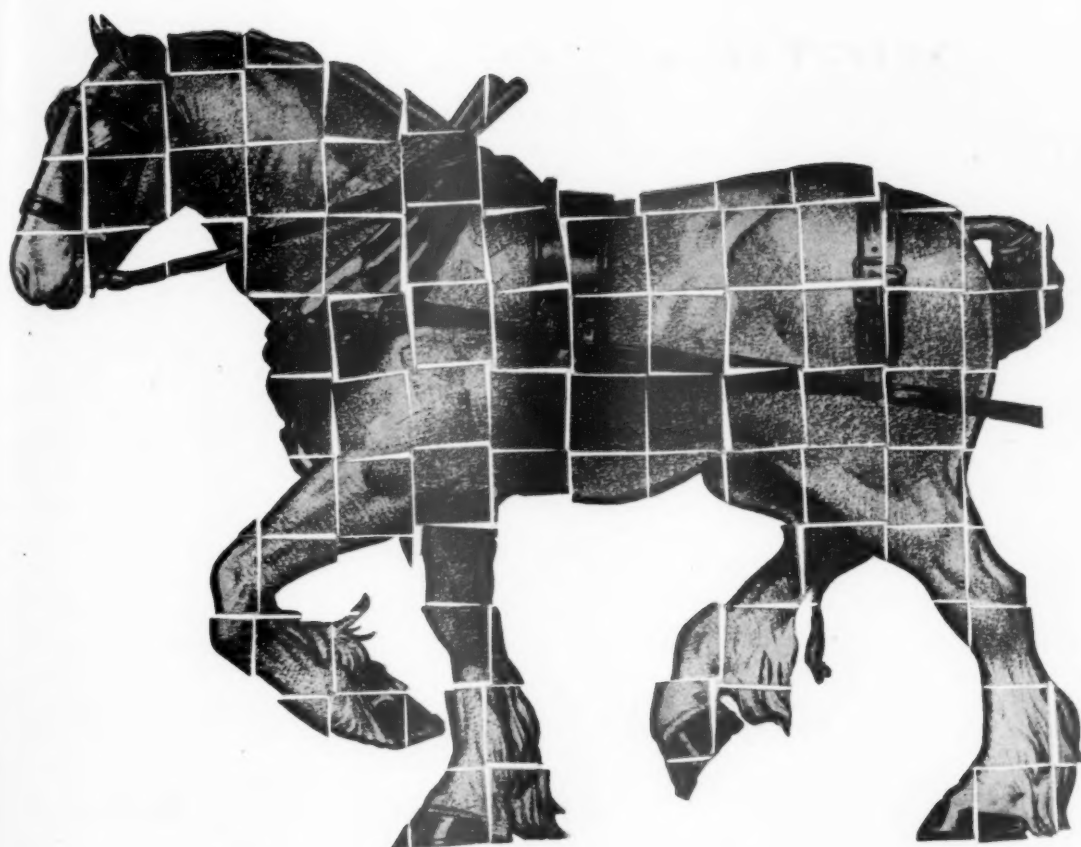
HURRICANE TUNNEL

In its huge new wind tunnel at Seattle, Wash., Boeing Aircraft is researching into the supersonic planes of the future—at simulated speeds ranging up to 700 m.p.h. Producing such hurricanes is a 24-ft. laminated-wood fan (below) which turns up 490 r.p.m., behind an 18,000-hp. constant-speed motor (right) produced by Westinghouse. Connecting them is a 34-ft. shaft and a magnetic clutch that permits variable fan speeds. The concrete tunnel is a 450-ft. continuous-return bore which ranges from 27 ft. to 12 ft. in diameter. At the narrow



throat is the test cell where scale models or full-size airfoils can be mounted for observation and tests in "flight."





James Watt's **horse** has been divided into 100 parts

For centuries "One Horsepower" had meant simply the work that one horse could do.

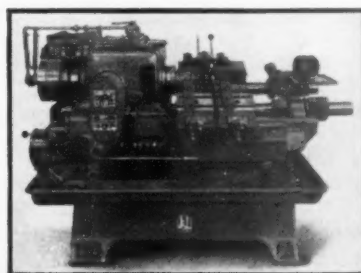
Then, 175 years ago, James Watt gave the term its modern meaning when he borrowed a husky dray horse from an obliging brewer and put the animal to the test. By means of tackles and weights, and some paper work, he determined that the horse could raise 1000 pounds at the rate of 33 feet per minute. So we got our familiar equation, . . . 1 horsepower = 33,000 foot pounds per minute.

This was a lot of power—ideal for draught work—useless for the smaller, more tedious tasks such as operating a razor, a needle, a fan or an egg beater. Only a visionary would have thought of this.

But, the advent and development of electrical power condensed Watt's horse and divided him into a hundred tiny fractions. Power far greater than his is now packed into less than a cubic foot, and fractions of him fit neatly into the palm of your hand.

Tomorrow, these tiny, useful fractions of horsepower will take over more and more of our trivial, but tedious, work. For, today, men with ideas have the help of the makers of modern, fast, accurate machine tools.

For over a century, Jones & Lamson engineers have been helping our most progressive manufacturers to put their newest ideas into profitable production. This accumulation of experience and knowledge is at your service today.



A Jones & Lamson Fay Automatic Lathe tooled to machine the frame for a small electric motor. Fay Automatic Lathes are used extensively to machine parts for all kinds of domestic appliances, that add to our comfort and lighten our work.

JONES & LAMSON

MACHINE COMPANY

Springfield, Vermont, U.S.A.



Profit-producing Machine Tools

Manufacturers of: Universal Turret Lathes • Fay Automatic Lathes • Automatic Double-End Milling and Centering Machines • Automatic Thread Grinders • Optical Comparators • Automatic Opening Threading Dies and Chasers.



"Hey, Mac... how do you spell opportunity?"

"DEAR SIR:"—the letter ran—"We're sitting under some busted-up palm trees now, a long way from the good old U. S. Some of the boys are thumbing over a last year's copy of your very interesting magazine. We hope you can mail us new issues, right away. I guess we are all pretty hot "prospects" for those western farms. Mostly, the fellows want places with streams, but we all think a little farm will give us a real..."

The "very interesting magazine" is *The Northwest*, a little 8-page monthly, published by the Northern Pacific Railway. It's not very fancy, as magazines go. No jokes, no pin-up girls... mostly just short articles on farming and ranching. Page 7 is always a listing of "Farm and Home Opportunities", describing farms and lands for sale in our western states.

As we get the picture, Page 7 is one of the best-read features in any literature reaching the war fronts. From a Fleet Post Office address comes

proof: "Although I'm from New York State, I'm very much interested in that logged-off land in Washington. Please send details." From the Amphibious Force Boat Pool: "It's difficult to make plans, but am very much interested in ranches in Northern Idaho." One letter closes this way: "So you see, your magazine may be the missionary which will bring... some of Uncle Sam's doughboys out West where the sun settles to sleep over fields of golden grain."

These letters seem to tell us what our men are fighting for. They are fighting for opportunity. Isn't it our duty to safeguard that opportunity for them?

There is a special, unwritten Bill of Rights that every American carries in his heart. It declares his privilege to take his own risks, in his own way... to use his strong, skilled hands to shape life as he wants it. That is the essence of free enterprise. And free enterprise, now and forever, spells *Opportunity*.



NORTHERN PACIFIC

MAIN STREET OF THE NORTHWEST

of a silk screen similar to that used in printing advertising posters, calls for a glass negative of an original loft drawing on white-painted steel. The negative is made by passing strong light through a special negative emulsion and catching the reflection of the white surface surrounding the black lines of the drawing on the same emulsion.

• **Sharp, Black Lines**—Since the negative emulsion is formulated for extreme contrast, and the emulsion with which Taber coats his positive "photoprints" has similar characteristics, the resultant templates, which can be made in any quantity from one or two to unlimited thousands, have sharp, unmistakable black lines on a clear white background; photoprints of original lofted templates also are made on photosensitive tracing cloth or paper for record purposes.

Template Reproduction has done or is doing work for Douglas Aircraft, Consolidated-Vultee, Brewster, Kaiser Fleetwings, Kellett Autogyro, Interstate, and several other aircraft outfits, plus Ford Motor, Briggs Mfg., Mack Truck, Willys-Overland, Roberts & Manders Stove Co., and the Cramp Shipyards, and is currently figuring on work for a big refrigerator producer.

• **Precision Assembly**—The latter is planning to equip each one of its subcontractors with a set of templates so precise that when subcontracted parts, such as refrigerator doors and cabinets, are delivered for assembly at the home plant, there never again will be an excuse for sloppy, inexact workmanship—an idea that Taber is promoting in other manufacturing fields with all the ardor of an evangelist.

The Photoprint Co., 5867 Towne Ave., Los Angeles, is an affiliated company which is not changing its name—at least for the time being.

Talking Trains

FM radio test is made on 1,140-mi. freight train run on Rio Grande Western. Railroad official praises results.

Control of moving trains by radio communication appeared last week to have made long strides forward with the experimental use of short-wave, frequency-modulation radio telephone equipment between locomotive and caboose on a Denver & Rio Grande Western Railroad freight train.

• **No Carriers Used**—Unlike other voice-transmitting equipment tested by other railroads (BW—Feb. 26 '44, p. 48), the experiment on the Rio Grande Western was conducted with a straight frequency-



The *Paper Fleet* that punctured an Axis Dream...



Scale model photo of invasion scene by Norman Bel Geddes.



An impressive fleet of LCI's (Landing Craft, Infantry) have been built at the Lawley Shipyards in Boston. LCI's have "hit the beach" wherever American forces have landed. The toughness of these "tight little ships", and of the Jenkins Valves so extensively used in them, has been convincingly proved in the test of battle. Below, Jenkins Valves are being fitted to the sea chest of an LCI, built at the Lawley Yards.



On the day the war began, America's amphibious fleet existed only on paper. Some designs had not even been conceived. Today, it already has an impressive record of victory, and construction is well-along toward the goal of 65,000 landing craft.

Enemy strategy called for quick conquest of great areas guarding their vital centers. Once they had dug in, they presumed, our attacks with conventional warships and transports on the outposts of these spheres would prove too costly to continue.

But they reckoned without these "boats that climb up on the beach", in such overwhelming numbers that individual losses could not affect the ultimate issue.

The creation of this unique and powerful fighting force so quickly is an epic achievement of America's shipbuilders and their industrial suppliers. Thousands of the valves required for these vessels have been made by Jenkins Bros.

Jenkins Bros., 80 White Street, New York 13, Bridgeport, Conn.; Atlanta, Boston, Philadelphia, Chicago. Jenkins Bros., Ltd., Montreal, London.



JENKINS VALVES

SINCE 1864

For every industrial, engineering, marine and plumbing-heating service . . . in Bronze, Iron, Cast Steel and Corrosion-Resisting Alloys . . . 125 to 600 lbs. pressure.

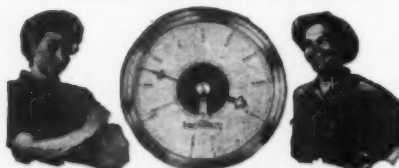
Property Facts Will Help..



**The AMERICAN
APPRAISAL
Company**

CONSULTANTS IN PROPERTY ECONOMICS

TODAY OR POST-WAR!



*It Is Important to Measure Valuable
Stored Liquids Accurately With -*

LIQUIDOMETER Tank Gauges
"THEY'RE ALWAYS DEPENDABLE"

100% automatic.

No pumps, valves, or auxiliary units needed to read them.

Models available for either remote or direct readings. Accuracy unaffected by specific gravity of tank liquid.

Approved by Underwriters' Laboratories for gauging hazardous liquids.

Write for complete details.

THE LIQUIDOMETER CORP.
39-12 SKILLMAN AVE. LONG ISLAND CITY, N.Y.

modulation radio without carrier devices of any kind through rails, wires, or induction.

According to railroad officials, it was the first test to their knowledge of this type of communication on trains.

• **Engine to Caboose**—The radio telephone was used for communicating end-to-end on a fast diesel-drawn freight train, 55 to 70 cars long, on an 1,140-mi. round trip through the Rocky Mountains from Denver, Colo., to Salt Lake City.

According to Ray McBrian, research engineer for the Rio Grande Western, the equipment used was standard General Electric short-wave FM apparatus, without special modification or adaptation for railroad use.

• **Tough Spot**—If the experimenters were looking for a tough spot for their test they were not disappointed. On its round trip, the train had to pass through 38 tunnels, many of them dug through rock containing minerals which usually interfere with radio broadcasting. In addition, there were numerous instances when short, sharp curves separated the transmitting and receiving devices in locomotive and caboose by billions of tons of metalliferous rock.

Notwithstanding this barrier, according to McBrian, there was only one point where communication failed, and that was in the famous 6.2-mi. Moffat tunnel through the Continental Divide.

Here, McBrian thinks, the difficulty may be overcome by booster equipment or some sort of feeder aerial installation.

• **Signals Heard Afar**—Although no attempt was made to communicate from the moving train to dispatchers en wayside stations (an end much desired by some railroad operators), there was some indication that such communication might be successful. Even with the experimental equipment, signals and conversation were picked up by a G. E. crew, cruising in an automobile at Denver, when the train was more than 50 mi. away and behind several ridges of the mountain range.

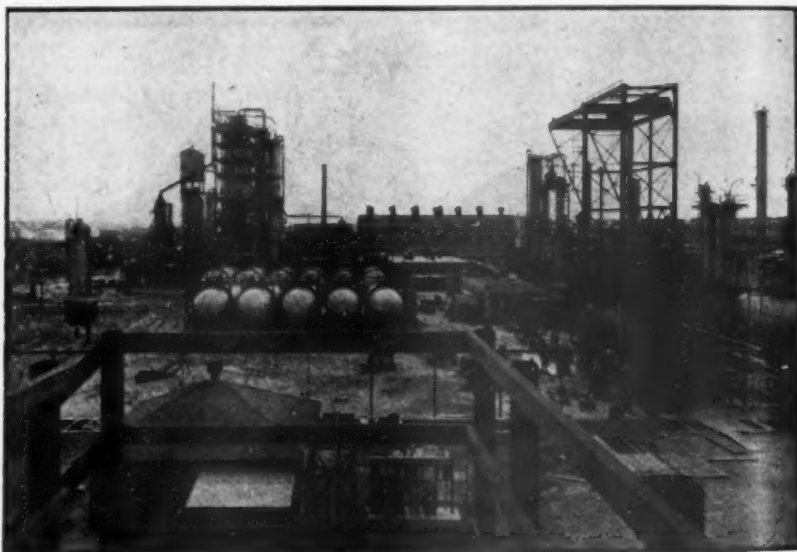
• **More Tests to Be Made**—The round trip was accomplished in three hours less than usual time, due in part, railroad officials said, to the quick interchange of signals and orders between the engineer and trainmen.

Further tests will be made.

PATENT CONCESSION

Six important owners of refining patents have agreed to manufacture aviation gasoline and toluene for government wartime use without royalties, and to license other refiners "at the lowest rate ever granted by the owners of the older thermal cracking process patents."


The Petroleum Administration for War invited such an agreement in a formal recommendation nearly two years



GAS ON THE RANGE

Dominating the skyline at Cheyenne, Wyo., is the nation's newest and probably the West's largest 100-octane gasoline refining and cracking plant. Built and operated for the Defense Plant Corp. by Frontier Refining Co.,

this \$6,000,000 layout represents the government's last contract for highest fuel facilities. Frontier, which was organized in 1940, has an option for postwar purchase, and meanwhile is pushing exploration work to assure the plant a future petroleum supply. Its capacity is a war secret.



*Tubing—hundreds of feet in
every bomber—vital parts of
engine mounts—fuselage—
fuel lines—hydraulic system
—exhaust manifold—land-
ing struts—cut to precise
length. Again Norton—
Norton Cut-off Wheels.*

Cutting-off with Norton Resinoid Abrasive Wheel

Thousands of sharp abrasive cutting teeth go into action at a surface speed of 16,000 s.f.p.m.—resinoid bonded by special Norton-developed formulas.

Yesterday—cutting-off was hardly more than a tool room or stock room application.

Today—cutting-off is a high speed production on many kinds of materials—steel, brass, aluminum, ceramics, plastics, insulating materials, glass, cemented carbides.

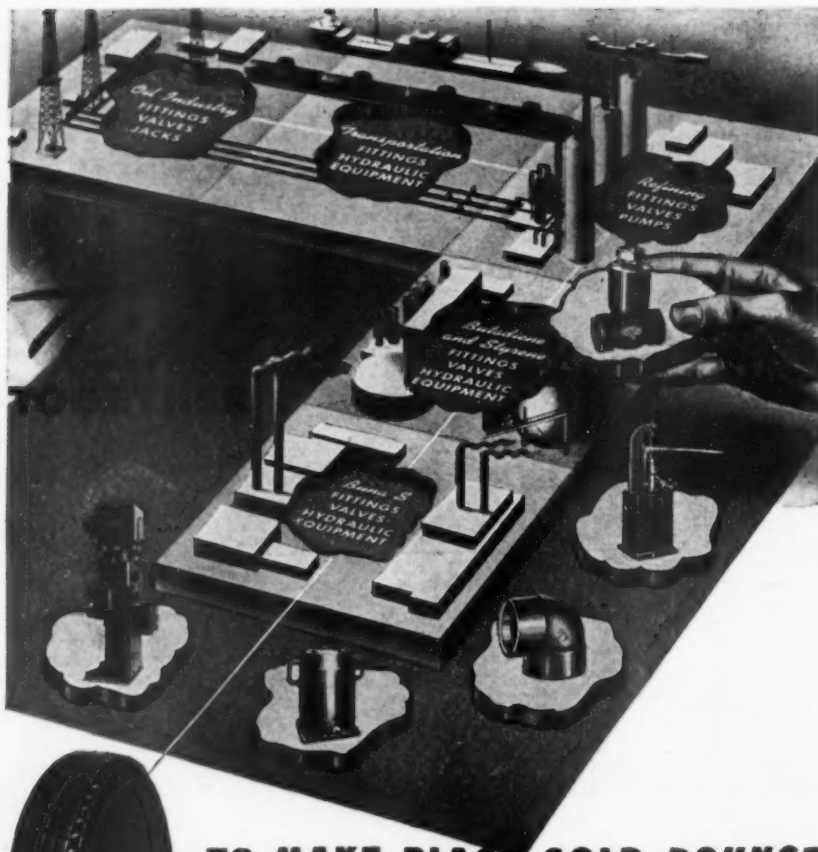
Norton Abrasive cut-off wheels not only cut costs but they save time—and time was never more precious than now.

NORTON COMPANY, WORCESTER 6, MASS.

Photo courtesy North American Aviation, Inc.

Behr-Manning, Troy, N. Y., is a Norton Division

NORTON ABRASIVES



TO MAKE BLACK GOLD BOUNCE

One form of nature's wealth changes to another. Men and equipment do it . . . working round the clock . . . in drilling for oil . . . in transporting the crudes . . . in tower-topped refineries . . . among shining spheres in butadiene and styrene plants . . . in making base rubber stock . . . molding it into vitally-needed products. Step by step in new born

industries, the magic-like transformation goes on.

Watson-Stillman is sharing in this achievement . . . helping to carry out a strategic rubber program . . . furnishing thousands of tons of machines and equipment . . . fabricating and supplying forged steel fittings along hundreds of miles of pipelines . . . speeding construction . . . simplifying and saving man-hours maintenance operations.

Watson-Stillman activities go beyond transforming black gold into tomorrow's rubber . . . extend to such fields as extruding and molding . . . high octane gasoline refining . . . ceramic-working . . . railroad operation . . . metal-working . . . shipbuilding. To each of these industries and others . . . wherever new plants are being equipped or existing plants expanded, Watson-Stillman offers products backed by a near-century of experience . . . engineering advice on present and postwar problems.

The Watson-Stillman Company, Roselle, N. J. Designers and Manufacturers of Hydraulic Equipment, Forged Steel Fittings and Valves.

A few war jobs for W-S products: Gun barrel straightening . . . shell drawing, loading, banding, nosing and piercing . . . keel bending . . . powder mixing, blocking, finishing and dehydrating . . . lifting floating drydocks, launching battleships . . . controlling the flow of aviation gasoline and other war fuels.

**WATSON
STILLMAN**

ago. Those who joined in the agreement include Shell Development Co., Texaco Development Co., Standard Oil Development Co., Standard Oil Co. (Indiana), Universal Oil Products Co., and M. W. Kellogg Co.

Other groups, PAW observed hopefully, are welcome to follow suit.

Safety Sentinel

Electronic device detects overheated railroad journal boxes and signals engine crew. Exact location of peril is reported.

With a lot of new devices stemming from its long experience with heat and air-conditioning control systems, plus its more recent developments in electronic devices for such purposes, Minneapolis-Honeywell Regulator Co. of Minneapolis is preparing to enter the railway controls business on a large scale when this war ends.

• **Warning Signals**—A new division has been set up for further development and marketing of these devices, which include an electronic journal box alarm system, which measures temperature in journals (axle bearings) on diesel locomotives, rings a bell if they get too hot, and lights a lamp on a signal panel to show enginemen which journal is overheated.

Under development is a simplified alarm for use on passenger trains. This would simply ring a bell if any journal on a train became overheated. Then the train could be stopped, the "hot-box" located, and the trouble fixed.

Honeywell engineers say such a system might have prevented wrecks such as that of the Pennsylvania Railroad's Congressional Limited last September, in which 80 persons were killed when a journal overheated and the axle on a car broke.

• **Humidity Control**—Also under development is a pneumatic system to control the cooling water in diesels so the engine will operate at maximum efficiency. Shutters on the diesel's radiator keep the water temperature constant. The result is that the engine is peppier and fuel oil is conserved.

Under study are (1) a temperature and humidity control system for passenger cars, and (2) a railway alarm system to insure mail clerks' delivering and picking up mail pouches at the right stations.

• **Pullman Tests**—Honeywell engineers recently traveled round trip Minneapolis to Chicago and Chicago to Los Angeles making exhaustive tests of Pullman temperatures. Using a Honeywell

Vacuum tubes and the post-war air...

The pattern of post-war, world-wide air transport lines is being drawn today. Its development and progress has been tremendously speeded up under the forced draft of wartime necessity. No one can doubt the practicability of such a transport system today.

The genius of aeronautical engineering, the courage and skill of the pilots and crews and the amazing efficiency of electron vacuum tubes are blazing these new trails through the skies.

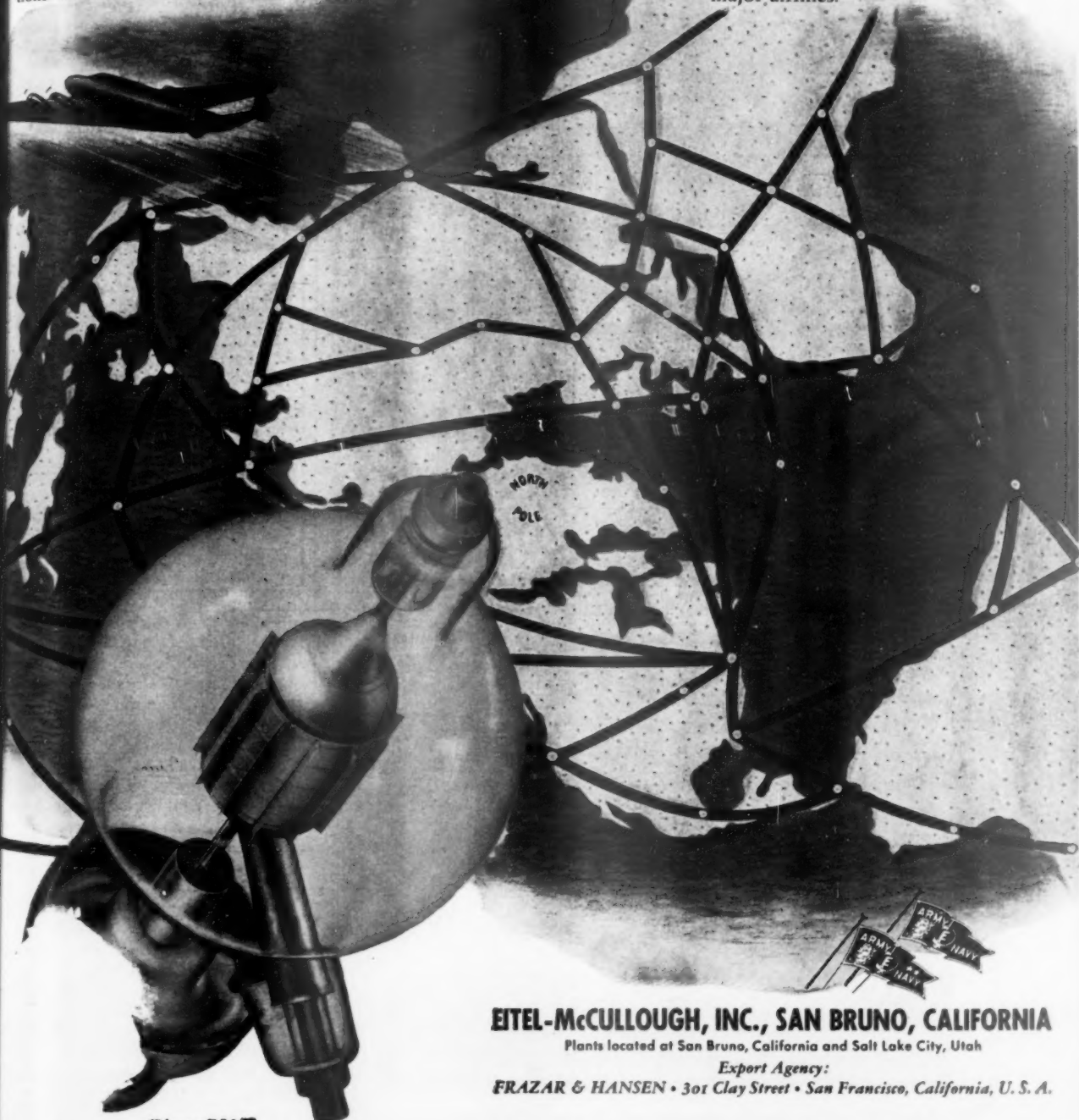
It's vacuum tubes in the ground stations that provide dependable communications. It's vacuum tubes in radio beacons

that keep the planes on course. It's vacuum tubes in instrument landing devices that bring the transport to rest on terra firma through rough, dense weather... and it's vacuum tubes in other now secret electronic devices which make air travel safe and dependable.

Eimac tubes are the dominant leader in the field of air transportation. Long years of successful experience, thousands of hours of dependable service have made them first choice of the leading engineers throughout the world... first choice of all the major airlines.

Follow the leaders to

Eimac



Eimac 750T

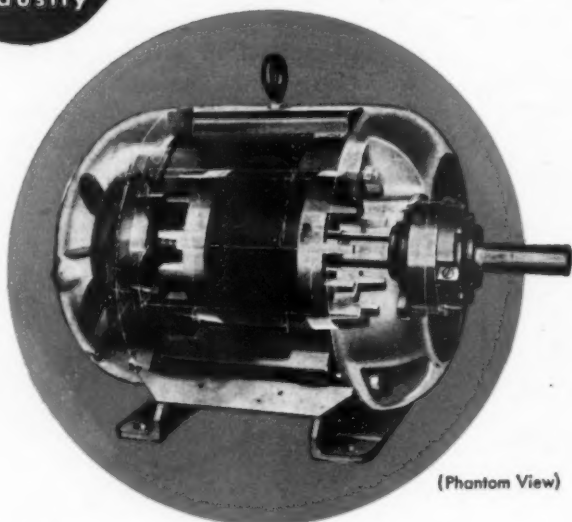
EITEL-McCULLOUGH, INC., SAN BRUNO, CALIFORNIA

Plants located at San Bruno, California and Salt Lake City, Utah

Export Agency:

FRAZAR & HANSEN • 301 Clay Street • San Francisco, California, U. S. A.

**WAGNER
PRODUCTS
for
industry**



(Phantom View)

Wagner

**Totally-Enclosed, Fan-Cooled
ELECTRIC MOTORS
operate under adverse conditions**

Industrial plants find many uses for Wagner CP totally-enclosed fan-cooled motors.

These two-frame motors are designed to operate under adverse conditions in atmospheres that contain dust, dirt, abrasives, steel chips, filings, acid fumes, and other ordinarily harmful elements.

The outer frame of the motor guides a cooling draft over the motor, while the inner frame completely seals vital parts.

In addition to CP motors, the Wagner line includes a wide range of motors of all important types and sizes, transformers, and industrial hydraulic braking systems.

For details on any of Wagner's products, consult the nearest of Wagner's 29 branch offices located in principal cities and manned by trained field engineers.



Write for Bulletin MU-182

FOR VICTORY—BUY U. S. WAR BONDS and STAMPS



M44-9

Wagner Electric Corporation

ESTABLISHED 1891

6460 Plymouth Avenue, St. Louis 14, Mo., U. S. A.

ELECTRICAL AND AUTOMOTIVE PRODUCTS

WINNING IDEAS SHARED

Perhaps the most important contribution of the War Production Drive (BW—Jan. 8'44, p. 92) is the fact that prize winning ideas submitted by employees in one plant are often applicable to similar production problems encountered in other plants—even in other industries.

A welders' light devised by a worker at the Marinship Corp. shipyard in Sausalito, Calif., to focus on work in dark corners has been adopted in 65 other plants, including several in industries other than shipbuilding. When a special jig for welding pipe flanges was announced by WPD, requests for details were received from 62 companies.

Up to Apr. 18, WPD had made 1,728 awards. Plants and shipyards that led in number of awards received by employees follow:

Marinship Corp.	134
Packard Motor Car Co.	108
Permanente Metals Corp. Ship-	
yard 1	86
RCA Victor	69
Kaiser Co. (Richmond No. 3,	
Calif.)	47
American Type Founders	39
Northrop Aircraft	37
Oregon Shipbuilding Corp.	36
Douglas Aircraft	36

In order of number of awards per worker, the leaders were American Type Founders, Marinship, RCA Victor, Northrop, Packard, and Permanente.

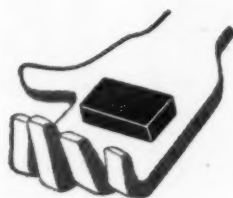
subsidiary's new electronic recorder, the made 700 ft. of charts giving temperatures at 25 different points in a Pullman car, and discovered, among other things, that temperature from one side of a berth to the other may vary as much as five degrees.

Data thus gathered will be used to develop a system for heating, ventilating, and cooling passenger cars—based, of course, on the use of Honeywell's electronic thermostat and control equipment.

• **Mail Sentinel**—The device for mail cars simply would ring a bell to warn clerks that they are approaching a station where mail is to be dropped or picked up by the moving train. This would eliminate a present problem wherein clerks sometimes miss a station, with the result that the succeeding stations all along the line then get the mail that was destined for the preceding station.

How the hardest metal made by man is helping win the war

... and will help your
product excel in peace



IN THIS war of metals, Carboloy Cemented Carbide — the hardest metal made by man — has a role of extreme importance. This unique metal has the ability to swiftly increase — often double and triple — the output of men and machines — without the time-consuming delays and costly changes usually required to achieve such results.

It has helped to offset—within relatively few months—almost a decade of Axis war production. In this tremendous job of metal fabrication for our nation at war, tools with Carboloy tips averaging less than one ounce have removed millions of tons of metal at cutting speeds once considered impossible. So urgent has been the need, so rapid its widespread adoption, that use of Carboloy rapidly reached a peak FORTY-FIVE times greater than any pre-war year. Ready availability, combined with the "know-how" of America's mass production men, helped turn the tide in our hour of greatest need.

This is the metal, the experience and the economy that will be available to postwar manufacturers.



To fabricate parts for tanks, planes, guns, etc., tools with Carboloy Tips cut at almost incredible speeds; often double or triple output of metal-cutting machines.



Wire for war is more accurate, smoother-surfaced, and gets there faster, because wire-drawing dies are equipped with ultra-hard, wear-resistant Carboloy "Nibs."



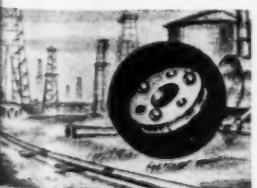
Vital Role of Carboloy Press-Dies in speeding cartridge and shell case production, forecasts post-war sheet metal products made faster, closer-sized, with better finish.



Keeping "in trim" the grinding wheels that make millions of precision parts for war. Dressers with Carboloy matrix permit use of smaller, less expensive, more plentiful diamonds.



Exploratory drilling for new veins of ore is speeded by Carboloy Diamond Core Bits that drill faster, conserve diamonds and keep drilling machines going more continuously.



Pumps, spray guns, textile machines and many other products, perform better with Carboloy parts built-in at vital points to reduce abrasive or corrosive wear.

CARBOLOY COMPANY, INC., Detroit, Michigan

Birmingham 3, Ala. • Chicago 7, Ill. • Cleveland 4, Ohio
Los Angeles 4, Cal. • New York 2, N. Y. • Philadelphia 22, Pa.
Pittsburgh 13, Penn. • Springfield 4, Mass. • Thompson, Conn.

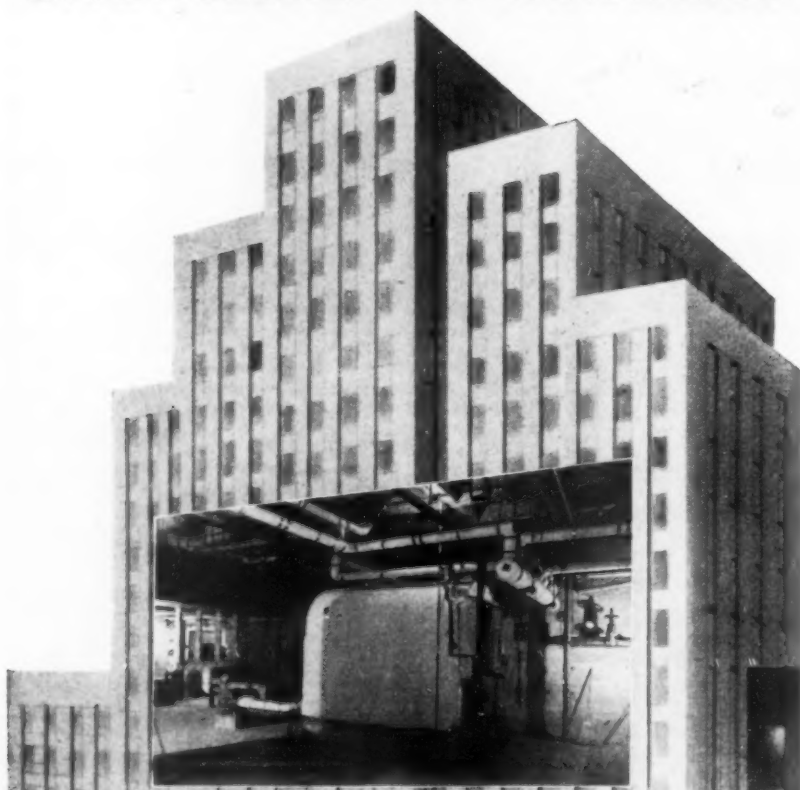
CARBOLOY

CEMENTED CARBIDE

**A METAL OF NEAR DIAMOND HARDNESS TO REDUCE EXCESSIVE
WEAR ON TOOLS, DIES AND MACHINE PARTS IN INDUSTRY**

FLUID TRANSPORT

ENGINEERED BY GRINNELL



DELIVERING COMFORT throughout a modern commercial building—whether a towering skyscraper or a block of small town stores—is an important task for **FLUID TRANSPORT** systems.

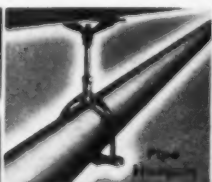
Heat and plumbing facilities are provided wherever needed by a network of **PIPING**. To support this piping, Grinnell engineers have designed hangers and supports for every purpose. These adjustable pipe hangers simplify installation, relieve strains and stresses on piping systems.

When you plan new construction or additions to present buildings take advantage of Grinnell's facilities for supplying the component parts for a complete piping system.

GRINNELL COMPANY, INC.
Executive Offices, Providence 1, R. I.
Branch offices in principal cities.

GRINNELL

WHENEVER *Piping* IS INVOLVED



NEW PRODUCTS

Man-Made Rubber

Comparative road tests are being arranged under the sponsorship of the Office of Rubber Director for heavy duty tires made of GR-S, or Buna, synthetic rubber, other man-made rubbers, and a new type of synthetic rubber developed by the Mathieson Alkali Works, 60 E. 42nd St., New York 17, but not yet named. All that can be said of its composition is that it is based on butadiene and a "new chemical produced from readily available raw materials."

Independent laboratory tests indicate that the "Mathieson rubber has greater resistance to heat, moisture, oil, and kerosene than GR-S, and less permeability to gases . . . is strong, tough, and resistant to cuts and abrasion. In certain of these respects, the laboratory tests indicate superiority to natural rubber as well."

Lightweight Binder

Putting new pages into a loose-leaf catalog bound in the new Electra



Binder manufactured by the Heinn Co., 326 W. Florida St., Milwaukee 4, is a simple matter of flicking a lever at the top of the "ring-post" assembly, swinging its right-hand half sidewise on a hinge and adding the pages. Sheets lie flat, secure against tearing and bulging, both open and closed positions. Mail costs are said to be reduced considerably by means of the lightweight construction.

Hinge and lever are metal; all other ring-posts and the two backing strips that carry them are made of a tough

plastic. Under a crush test designed to approximate actual mailing conditions, it is reported that the assembly "merely gave slightly under the weight, then because of its resiliency came back to its original shape once the weight was removed." The binder will be available in a variety of cover materials with plastic mechanisms in almost any matching or contrasting color.

Battery Clamp

Approval for the installation of the new Battery Hold-Down Clamp de-



veloped by the Paul Henry Co., 2037 S. La Cienega Blvd., Los Angeles 34, has been granted by the Army Air Forces. When military needs have been met, the patented device will become available for civilian cars, buses, and trucks, both highway and industrial.

Two clamps replace a pair of wing nuts which normally hold a storage battery in a vehicle. You thread a clamp on for the initial installation and press its camlike hand lever down, but after that, when a battery requires replacing, you will simply lift the lever to open, press it down to close. Though the device was designed to "alleviate the difficulties encountered in removing or changing batteries under extreme climatic conditions, or where the element of time saving is important," it also promises to prevent many a barked fumble for users.

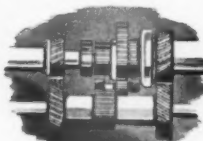
Micro-Counter

High accuracy in the weigh-counting of large numbers of small products and parts is the aim of John Chatillon & Sons, 85 Cliff St., New York 7, in developing the new Micro-Counter. Like other similar ratio, beam scales, it has a "sample pan," into which are counted a small number of uniform parts, and a "counter pan" to hold a considerably larger quantity of uncounted parts whose precise number is determined quickly by the ratio between their

With their lives . . . our fighting

men  **depend on the micro-**
inch accuracy  **and**

unfailing strength of vital parts

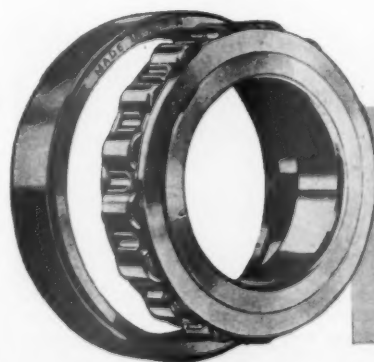
 **in planes, ships, tanks and**
guns. Prominent among these parts

are millions of  **Hyatt Roller**

Bearings . . . guarding against friction

and power losses . . . guarding against

losses of things  **that are**
precious to every American . . .



HYATT BEARINGS
DIVISION OF
GENERAL MOTORS

TAKING CHANCES

with our most vital weapon
... MANPOWER



Do YOUR workers take these chances?

Each year more than 100,000 American factory workers are injured in material handling accidents—resulting in more than 5 million working days lost! These casualties account for 25% of the total of all industrial compensation cases. They include crushed fingers and toes, strained muscles and backs, hernia and other more serious injuries . . . *Most of them could be avoided through the proper use of power industrial trucks* . . . Trucks conserve manpower for war production in other ways too. A single operator with a Baker Fork Truck can, for example, safely load a car or highway truck in a fraction of the time required by several men with hand equipment.

If your workers are still taking chances like those above, let The Baker Material Handling Engineer show you how you can reduce absenteeism and multiply the effectiveness of your workers with modern mechanized handling methods.

BAKER INDUSTRIAL TRUCK DIVISION
of The Baker-Raulang Company
2164 W. 25th STREET • CLEVELAND, OHIO
In Canada:
Railway and Power Engineering Corporation, Ltd.



Baker INDUSTRIAL TRUCKS

weight and that of the previous counted sample parts.

Since the exact balance of the scale is a decisive factor in achieving accuracy, it is equipped with a magnifying glass for reading the balance indicator, and a magnetic damper to bring the scale beam to a quick stop. The Micro-Counter is said to provide accuracy to 0.001 oz.

THINGS TO COME

Passengers in the very first post-war automobiles will very probably ride with accustomed comfort on the more or less orthodox spring suspensions that were current in 1942 models. Passengers in some of the dream cars of a later time will almost float along, protected as they will be against road shocks not only by improved spring suspensions and seat cushions, but by redesigns of the gyro-stabilizers which are holding the big guns of Allied tanks level on any terrain. Method of operation remains a military secret, but there are also plans for stabilizing railroad cars and other vehicles.

First reports of the effectiveness of "DDT" as an insecticide did not go far enough (BW—Feb. 12 '44, p. 61). Dichloro-diphenyl-trichloro-ethane not only puts fleas, flies, and other pests out of commission at the time of spraying, but leaves an invisible deposit on walls and ceilings which remains highly toxic to flies for four or five months—meaning that one spraying will virtually flyproof the interior of a building for an entire fly season.

When peace is followed by almost inevitable sales of surplus military equipment, there may be as big a public rush for inflatable rubber boats as for jeeps. Though the sizes of the seaworthy craft range from a one-man job to a 25-man lifeboat which expands from a compact 1½x5x7-ft. package to a length of 25 ft. and a beam of 10 ft., there will be any number of prospective customers who will want odd-size boats designed for particular purposes. Manufacturers will be able to build them quickly, ready to be strapped on family jalopies and hustled to watering places where they will be inflated in a minute or less with bottled carbon dioxide gas.



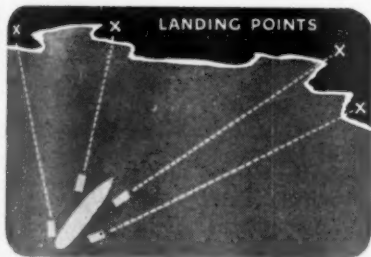
Landing troops on a hostile shore is war's most dangerous operation. Enemy guns open up on transports. Bombers get busy. Landing barges feel their way in

through mined waters. Men wade through waist-high surf to cut barbed wire. Enemy machine guns spit death.

What it takes to launch an invasion...

To invade Europe (or Japan), thousands of barges carrying men and equipment must land at specified, widely separated points with *split-second* timing.

Silence and darkness are essential. No guide lights, no radio, no shouts.



Months before, our Armed Forces must have solved thousands of difficult problems.

But, once the invasion begins, everything is up to the skill of the officers and men of the Navy and Coast Guard, aided by the compass in each landing craft they man.

The compass must be *non-magnetic*... unaffected by electrical machinery, ship's structure, or cargoes. The Gyro-Compass is such a compass, but...

The regular-size Sperry Gyro-Compass, used by the Navy since 1912, is too big for small invasion craft. Fortunately, experts in the Gyro-Compass

office of the Navy Department had foreseen this difficulty.

Back in 1940, they said to Sperry, "We need a lightweight Gyro-Compass for small vessels. We want it by ——. Here are our specifications."

It had previously been considered impossible to make a Gyro-Compass of the size the Navy required. But new techniques, including the application of electronics, enabled our engineers to have a satisfactory functional model operating within three months.



Thanks to Navy foresight, quantities of these small Gyro-Compasses are in use today in our LCI (Landing Craft-Infantry), LCC (Landing Craft-Command), LSM (Landing Ship-Mechanized), and Submarine Chasers.

Our engineers and production experts not only met the Navy's requirements and got these Gyro-Compasses rolling in the Sperry plant, but they

assisted one of the Navy's prime contractors, Package Machinery Company, of Springfield, Mass., in tooling up and in training personnel to produce additional Gyro-Compasses.

Sperry's part in all this has been small compared with the whole vastly complex operation. We could help the Navy solve this problem only because for 32 years our business—in war and peace—has been to solve difficult technical problems through research, invention, and precision engineering.

But all Sperry, or any other company, can do is mighty small potatoes stacked up against the job of the fellows who splash ashore and do the fighting that clears the invasion beachheads!

★ Let's All Keep Backing the Attack ★

SPERRY

CORPORATION

30 Rockefeller Plaza, New York 20

FORD INSTRUMENT CO., INC.

SPERRY GYROSCOPE CO., INC.

VICKERS, INC.

Waterbury Tool Division, VICKERS, INC.

Tills Overflow

Currency in circulation totals 21 billions, or nearly triple amount at start of war. Hands-off policy is maintained.

Ever since the start of the war, bankers and Federal Reserve Bank authorities have been watching currency drain out into circulation, wondering if they should do anything about it. So far, they have followed a strictly hands-off policy, and the chances are that they will continue with the same policy even though banks complain about the way currency withdrawals are cutting into their reserves.

• **Circulation Triples**—At the moment, currency in circulation—which includes all paper money and coin outside the Federal Reserve Banks—totals about \$21,000,000,000. This is a little less than triple the circulation at the start of the war. At present the demand for additional currency is running about \$400,000,000 a month, and there is no sign at present that it will let up until the war production program starts to contract.

Total circulation includes the till money of banks and the cash held by corporations, but Federal Reserve experts figure that about \$16,000,000,000 of the money outstanding is in the hands of individuals. This works out to about \$450 to a family, which as one banker remarked, "will fill a hell of a lot of teapots."

• **Big Bills Withdrawn**—One feature of the currency drain that monetary authorities are watching closely is the recent uptrend in withdrawals of large bills. During 1943, when total circulation jumped \$5,000,000,000, denominations of \$50 and over rose \$1,750,000,000 or about 35% of the increase. This was roughly in line with experience in recent years.

In January and February of this year, however, big bills accounted for two-thirds of the increase. Seasonal reflex of small bills after Christmas is only a partial explanation.

Ordinarily, the big denomination bills serve as a fairly sensitive barometer of the public's faith in the banking system. A sudden demand for big money usually means that depositors are pulling their savings out of the banks and keeping them in paper money or coin. A rise in the circulation of large denom-

inations sometimes has been the first symptom of a banking panic.

• **No Question Now**—This time there's no question about the public's faith in the banks. With deposits up to \$5,000 covered by the Federal Deposit Insurance Corp., and with the Federal Reserve Banks protecting the market for government securities (now the banks' main asset), even the most timid depositor isn't worried about getting his money back whenever he wants it.

Experts are sure that fear-hoarding of the sort that touched off the banking panic of 1933 has nothing to do with the present drain of currency into circulation.

• **Tax Evasion?**—The experts aren't so sure, though, about what does cause the demand for big bills. One contributing factor, they think, is attempted tax evasion. With incomes higher and taxes stiffer, individuals and small business have a greater incentive to conceal their financial transactions. Hence, some probably are handling big deals in cash instead of writing checks. Another possible cause is the rise of black markets and the secrecy that naturally goes with them.

Neither of these explanations tells the



CHANGING VALUES

Once valued at uncounted millions, old deposit slips and checks literally are not worth the paper they're printed on today. So these records of wealth are turned in by the truckload for paper salvage by Milwaukee's First Wisconsin National Bank. Despite such donations, monthly collection quotas are running 100,000 tons short.

whole story, however. Experts agree that the main reason for the rising demand for big bills probably is the steady growth of savings among economic classes that are not accustomed to use the banks. Savings, they think, have reached the point where they literally fill too many teapots. Hence, their owners are converting small bills into larger ones which can be tucked away more conveniently.

• **Rise in Transactions**—Increased savings also boost the demand for small bills, but many other factors have contributed to the rise in their circulation. Rapid increases in lower and middle incomes have put more money in the hands of people who ordinarily use cash rather than deposits for their regular living expenses. Thus the rise in salaries and wages has been accompanied by a rise in the transaction balances that the public holds.

Modern banking practice, with its emphasis on service charges and metered accounts, probably has discouraged salary and wage earners from opening accounts and fully utilizing the ones they have. On top of that, migration of workers often has broken up their old banking connections and encouraged pants-pocket banking.

The rise in prices has led individuals to keep larger amounts on hand. And the general increase in employment and wages has boosted the amount that corporations need for payrolls.

• **Nuisance for Bankers**—From a banker's viewpoint, the steadily mounting demand for currency is more of a nuisance than a danger. As long as it does not represent panic-hoarding, a rise in circulation does not threaten the liquidity of the banking system. At the present time, it does squeeze some banks which are working on a slim reserve ratio. For each dollar of currency that goes out across its counter, a bank has to draw a dollar from its deposits with the Federal Reserve Bank, which serves as reserve against its own deposits.

As long as the banks are needed to take up government securities, however, the Federal Reserve Board will see to it that they are fairly well supplied with reserves. Any drain of currency into circulation will be offset by open market operations or reduction in reserve requirements. For the present at least, the Reserve System has all the resources it needs to keep the commercial banks in comfortable shape.

• **Two Chief Reasons**—The comparative harmlessness of the increase in circulation is one of the two main reasons why monetary authorities haven't taken any steps to halt it. The other is simply that no one can figure out an effective way of controlling circulation. The amount of currency outside the banks



Will you ever need a friend in Middletown?

You'll probably be in Middletown one of these days. Because there's a Middletown, California and a Middletown, New York. There are Middletowns in Pennsylvania, Kentucky, Connecticut, New Jersey, and in more than a dozen states.

If you're insured in The Hartford, there is an agent to serve you in almost any town. If, for example, you have an automobile accident in Middletown, Illinois, Hartford agent Lee C. Stone is your friend in need. In Middletown, Ohio, it would be the W. T. Harrison Insurance Agency, Inc., that could be on the scene quickly.

You're never far from Hartford service and it's always easy to get a Hartford policy. After you're insured in the Hartford, your own agent and more than 17,000 other Hartford representatives are at your service. There's no extra charge—it's one of many advantages of buying a Hartford policy.

★ ★ ★ ★ ★

"Let me explain this policy to you"

Imagine trying to explain to your dog: "If you must bite someone, please do it on the premises. My insurance covers only at home." There's a much



better way. A Hartford Comprehensive Personal Liability policy protects you wherever accidents happen, and whenever resulting damage claims are made. It covers if someone is injured on your property, or while you're playing golf, riding a bicycle, hunting, fishing, etc. Ask for circular.

★ ★ ★ ★ ★

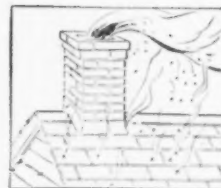
Suppose this happened in your business!

Your Accounts Receivable records were destroyed, damaged, lost or stolen... could you collect your outstanding bills? Through Accounts Receivable insurance you can guard against loss by such a contingency.



Where do most fires start?

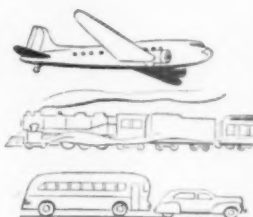
Unclean chimneys are a serious fire hazard. Keep your chimney clean and in good repair from bottom to top. Have a fire extinguisher or two in handy spots. And by the way, keep ashes and rubbish in metal containers.



★ ★ ★ ★ ★

How do you go places?

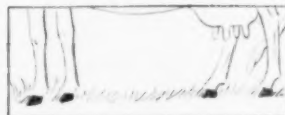
Whether you ride buses, trains, the air lines or go places in your car, you risk accidents that you simply can't prevent. The Hartford's \$5 Automobile Accident policy has now been broadened to include transportation hazards. It pays hospital, medical, nursing and surgical expenses up to \$500—and substantial death and dismemberment benefits. Ask your Hartford agent for details. It's a lot of insurance for \$5.



★ ★ ★ ★ ★

Do your investments have legs?

Are you worrying about losses in your dairy herd or among your feeding cattle from accident, disease, fire or lightning? Wise farmers and cattlemen don't take chances on their four-



footed investments—they protect their interests with Hartford Live Stock insurance.

★ ★ ★ ★ ★

Don't be too far back

Sure, you're "backing the attack," but don't get so far back that our fighting men can't feel your help. Stay out in front in your War Bond buying, blood donations and salvage activities.



★ ★ ★ ★ ★

A picture that is a promise

When you see the Hartford Stag trademark on your insurance policy, you have the satisfaction of knowing that you are insured in a company that has been protecting American property owners, and doing a good job of it, since 1810. This familiar picture is as much a promise of fair dealing and sound indemnity as are the provisions of the policy itself!



HARTFORD INSURANCE

Hartford Fire Insurance Company
Hartford Accident and Indemnity Company
Hartford Live Stock Insurance Company
Hartford, Connecticut

Writing practically all forms of insurance except personal life insurance

Outfitting another exploration into emptiness



DPI glassblower fashions parts for high-vacuum equipment. Torkel Korling photograph.

HAVE YOU explored the world of high-vacuum and its possibilities for your business?

Many a corporation has found that processing in high-vacuum is both useful and profitable. And many of these organizations turn to DPI for efficient, dependable high-vacuum equipment.

It may seem odd that DPI, known in the foods and pharmaceuticals fields as a leading supplier of vitamin A and vitamin E concentrates, is

also a leading supplier of high-vacuum equipment — pumps, gauges, oil, and the like—to industry.

But remember this: our vitamin concentrates are superior because they are distilled in high-vacuum. We use our own high-vacuum equipment, most of it originated and developed in our own laboratories. And we are our own severest critic.

We are eager to be of service to you.



Distillation Products, Inc.

Pioneering High-Vacuum Research

755 Ridge Road West, Rochester 13, New York

*"Headquarters for Oil-Soluble-Vitamins
and High Vacuum Equipment"*

is determined entirely by public preference, since each individual has the option of holding his money in currency or in deposit credits.

Government officials know from bitter experience that the safest thing is to let the public have its way as long as possible. Control measures dealing with the currency are likely to be misinterpreted and touch off an unpredictable reaction.

Federal Reserve authorities are cautious about urging banks to solicit deposits, but some suggest that if banks want to do something about the currency drain the most effective method would be to sell their checking account service energetically.

• **England's Plan**—Another idea that some bankers propose is to stop issuing bills in denominations of \$50 and over. This, they think, would discourage the holding of large amounts in currency. Federal officials are noncommittal, but they are interested by the English experience along this line. In May, 1944 the British government simply announced that no more notes of £10 and over would be issued.

Although the government remained enigmatically silent, rumors got around that a crackdown on tax evasion and black markets was in the wind. For the next three months, there was almost no change in Bank of England circulation, the return of big bills offsetting further withdrawals of small notes.

REPORT TO EMPLOYEES

Many companies are issuing annual financial reports in language easily understood by the man in the street, and some concerns break down the figures in special reports for employees.

Douglas Aircraft Co., in its 1943 report, went a little further in writing a report in terms of the individual employee. Some of the figures that are easily grasped by the man at the lathe:

Each of the average 138,230 employees produced planes, parts, and services for which customers paid the company \$7,145.24—total receipts \$987,687,196.19.

The average pay per employee was \$2,623.29, and the cost per employee of supervision, in salaries, was only \$2.71.

For materials and services, \$2,256.77 was paid per employee, and for work done by subcontractors, \$1,793.52.

Each employee contributed \$360.88 for government—federal, state, and local taxes.

Dividends for the use of the money to do business amounted to \$21.70 per employee, depreciation on the plant came to \$14.82, and money set aside for future operations was \$21.36.

public pref
as the o
n curren
from h
thing is
as long
s deal
to be m
unpred
s are ca
solicit
if bank
the c
e meth
g accou
idea th
op issu
and o
urage t
curren
mittal, b
english
ay, 194
ply a
£10 an
remain
t arou
ion an
For t
most
ulation
furth
annu
sily u
et, an
figur
s.
1943
writing
al en
nat a
0 cu
s, an
id th
accep
ee wa
plene
on
56
wo
52
60.8
1 loc
none
0 pe
plan
asid
194



Heat Treating

IN THE WORLD'S LARGEST VALVE PLANT

THIS long row of heat treating ovens gives you an idea of the tremendous production capacity at the Crane Chicago Works. Into each oven a mountain of steel valve castings is rolled—up goes the temperature as high as 1950° F., and hours later—as many as 35—out come the castings—strains and stresses removed, ready for the tough service demanded in battle-ships, oil refineries, steel mills or wherever excessive temperatures or pressures are encountered.

The huge capacity of this plant has proved of great service to the nation when the piping requirements of the Navy, the mer-

chant marine, and industry have been for valves and fittings in tremendous quantities. At Crane Co. these increased demands are being met by vastly stepped-up schedules.

Industry at peace will require valves and fittings, too, in quantity—the same high quality valves and fittings that are today serving a nation at war. When that time comes, American manufacturers can look to Crane for quality valves and fittings, backed by the added experience and technological skill that war has added to Crane's already extensive manufacturing know-how. CRANE CO., General Offices: 836 South Michigan Avenue, Chicago 5, Illinois.

CRANE

**VALVES • FITTINGS • PIPE
PLUMBING • HEATING • PUMPS**



a
WORKABLE
plan for:

- postwar adjustment
- better standards of living
- continued prosperity

Now—a man in close contact with the planning of wartime production mobilization tells us **How to Lay the Foundations** of an enduring postwar prosperity. He presents a logical program to assure jobs and good living for all our people, *all the time*. He shows why the best way of preserving the democratic system is by making it work, and then shows *how this may be done*.

JUST PUBLISHED MOBILIZING FOR ABUNDANCE

By **ROBERT NATHAN**
Formerly Chairman of Planning,
War Production Board
228 pages, 5½ x 8 \$2.00

Here is an understandable, workable plan for avoiding costly depressions, for getting through the postwar period with minimum economic dislocation, providing more and steadier jobs, and building a long-time era of higher living standards and sustained prosperity for all. Can we afford to have depressions? Must there be a period of extensive unemployment? Will taxes stifle incentive? Find the answers to these and many related questions in this book.

DONALD NELSON says:

"I have read **Mobilizing for Abundance** with absorbing interest. In this book Mr. Nathan bears out fully his reputation for deep insight and broad comprehension for many of the major economic and social problems the nation will face in readjustment from war to peace."

See Book 10 Days—send coupon

.....
McGRAW-HILL BOOK CO.,
330 W. 42nd Street, New York 18
Send me Nathan's **Mobilizing for Abundance** for 10 days' examination on approval. In 10 days I will send \$2.00 plus few cents postage, or return book postpaid. (Postage paid on cash orders.)

Name
Address
City and State.....
Position
CompanyBW 4-29-44
(Books sent on approval in U. S. and Canada only)

B. & O. to Pay

Railroad has cash for its
Aug. 1 maturities of \$28,500,000
publicly held notes. RFC agrees
to extend its share of issue.

Despite many Wall Street predictions that the road would have to ask for an extension of 40% to 50% of the debt (BW—Mar. 4'44, p. 92), Roy B. White, president, announced that the Baltimore & Ohio expects to be in a position to pay off in cash all the \$28,500,000 publicly held 4% secured notes when they come due Aug. 1.

• **RFC Cooperates**—The Reconstruction Finance Corp., subject to Interstate Commerce Commission approval, he announced, has agreed to extend its \$13,490,000 share of similar B. & O. notes. It is understood, also, that discussions are under way looking to an extension of the \$72,000,000 of additional B. & O. debt to the lending agency which matures on Nov. 1, 1944.

Whether the system will decide to use its own cash resources, which totaled in excess of \$79,000,000 recently, or, with an eye on possible postwar cash needs, secure a bank loan to help handle the large August payment is still not clear. However, it is generally believed that the road, despite the 50% year-to-year decline disclosed by January and February net earnings, will probably decide to swing the payment alone.

• **Other Problems**—Many in Wall Street had thought that when B. & O. announced its plan for taking care of the August maturity it would consider the occasion, also, an opportunity for making some proposals concerning the serious additional maturity problem it will face in 1948 when \$156,000,000 of 4% and 5% first mortgage bonds come due.

The same financial circles now believe something may be done in this connection when the road is finally in a position to announce extension of the \$72,000,000 RFC debt due this fall.

PAYING OFF RFC LOANS

The nation's banks have been showing a growing tendency to take advantage of their increasingly healthy condition to sell additional common stock for cash locally in order to secure funds to get out of the government's debt. This trend is emphasized in a report on the general national banking situation just issued by Preston Delano, Comptroller of the Currency.

Delano reported that in the first three months of 1944 alone, 283 national

banks retired \$7,500,000 of preferred stock which the Reconstruction Finance Corp. had been holding as security for loans originally made these institutions during the depression.

These repayments brought the total amount of such stock held by RFC to less than \$125,000,000-level and a number of issues to below 800, compared with the maximum of over \$600,000,000 issued to the RFC by some 2,300 banks.

According to the comptroller, an additional 200 banks in the first quarter of 1944 also increased their common (or sole) stock issues, 40 by sales of \$5,300,000 of new stock and the rest by the declaration of stock dividends totaling \$17,000,000.

To Share Assets

Common stockholders of solvent utility being dissolved under holding company law get break in circuit court ruling.

A decision of far-reaching importance to financial circles has been handed down by the Third Circuit Court of Appeals in Philadelphia in a ruling that common stockholders of a solvent utility corporation being dissolved under the public holding company law are entitled to share to "some" extent in distribution of the assets, even though the assets are not sufficient to pay the liquidation priorities of the preferred stock.

• **Distribution Ratio**—The unanimous decision sustained the joint dissolution plan of United Light & Power Co. and its wholly owned subsidiary, the United Light & Railways Co., under which the former is to be liquidated and the latter's common stock distributed on the ratio of approximately 95% to Power's preferred stockholders and about 5% to its common holders. This plan was approved by the Securities & Exchange Commission.

Power's preferred stock amounts to \$60,000,000, on which there are unpaid accumulated dividends of \$38,700,000, giving the preferred priority of \$98,700,000, as against the maximum value of \$81,554,330 of Railway's common.

Power's common amounts to \$28,482,745, and under the plan, these holders would get around \$4,000,000 of the railway common shares.

• **Involuntary Liquidation**—Dismissing an appeal by Otis & Co., Cleveland investment house, from a decree entered by a Wilmington (Del.) district court approving the plan, the circuit



SAVE THE SECONDS... and you Save the Day!

If you could cut 10 seconds off the time it takes to figure and record and report John Polatti's pay.

And could save those same 10 seconds in every one of the thousands of names in your payroll...

You'd really "save the day" if you've heavily-burdened payroll department!

Sundstrand Payroll Accounting Machines can save those precious seconds for you!

Read these time-saving Sundstrand Payroll Machine advantages:

Payroll Records. Your Payroll Sheet or Summary is prepared at the same time that the Employee's Earnings Record is posted and the Pay Check or Pay Statement or Pay Envelope is written.

Postings to the Employee's Earnings Record are made in original, not carbon impressions. When the forms are in the machine, all entries are completely visible.

Dates and Pay Check Numbers are printed automatically. Protective Stars are automatically printed before the Check amount. When deductions exceed earnings, the Pay Check is automatically voided.

Gross Pay and Net Pay amounts are automatically computed and Column Totals are automatically printed.

Government Reports. Year-to-Date Total Gross Earnings and Withholding Tax are automatically computed for Income Tax purposes.

Quarter-to-Date Total Taxable Gross Earnings are automatically computed for Social Security Tax purposes. When the taxable total reaches \$3,000, the machine automatically exempts amounts in excess.

War Bond Ledgers. The machine can be set for any bond denomination. The Unapplied Balance and the amount "To Go" before the next bond can be purchased are automatically computed.

When the Unapplied Balance reaches the purchase price of the bond, the purchase is

automatically recorded. All bond purchases are listed by employees and automatically counted and totaled.

A call to your local Underwood Elliott Fisher office will bring you, without obligation, interesting information on how your payroll department can save hours of man power and woman power.

Sundstrand Payroll Accounting Machines are available subject to War Production Board authorization.



Underwood Elliott Fisher Company

Makers of Underwood Typewriters, Accounting Machines, Adding-Figuring Machines and Supplies • One Park Avenue, New York 16, N. Y.

Our factory at Bridgeport, Connecticut, proudly flies the Army-Navy "E" awarded for the production of precision instruments calling for skill and craftsmanship of the highest order...



Cleveland—in America's Industrial Heart

AT THE VERY CENTER of this country's most concentrated manufacturing region lies Cleveland, its own local area a cross-section of the entire region.

The Cleveland area—drawing economically on the vast resources of the adjacent territory—is rich in the advantages which Industry seeks.

For almost a century, The National City Bank of Cleveland has played a vital part in the economic development of this region. The officers of this bank are intimately acquainted with the needs of Industry and with the resources here available. Your inquiry about postwar plant locations and other facilities is invited

THE NATIONAL CITY BANK OF CLEVELAND

Euclid at East Sixth



and Terminal Tower

MEMBER FEDERAL DEPOSIT INSURANCE CORPORATION

court ruled that a "dissolution" or "liquidation" order by the SEC under Section 11 (b) of the holding company act does not "mature" the stock and entitle the preferred to payment of face value and all accumulated dividends.

The court held that the "liquidation" is an "involuntary one" forced on the corporation by an act of Congress to curb holding companies, and that when the dissolving company is "solvent" its common stockholders are entitled to some return on their investment.

Drinkidend Nears

N. Y. liquor authority to issue permits to stockholders of American Distilling. Plans of P. & T. are still vague.

Under recently legislated authority to issue permits not expressly covered in the original liquor control act, New York's State Liquor Authority has announced that it can grant American Distilling stockholders the right to exercise the whisky-buying privileges offered them by the company late last year (BW-Dec.18'43,p113).

• **Period Extended**—Because of this action, the trustee handling American "drinkidend" has been authorized to extend for 30 days to May 20 the period during which stockholders may exercise their right to buy (for each share held 16 cases of blended whisky at a basic ceiling price of \$18.62 a case. Those who make purchases of unstamped shares up to May 20 may also buy 16 cases a share.

However, only those who were stockholders of record Feb. 29 will have the additional right to purchase (for each share) one case of rye whisky and another of bourbon at \$28.37 each.

• **Purchase Limited**—New York State stockholders will be permitted to import for personal use only the maximum of 18 cases obtainable for each share. Nevertheless, they will be allowed to benefit financially from any additional purchase rights they may hold, since other permits may be secured to cover the sale of excess liquor in the usual licensed channels.

Permits will cover one share of stock only, and their cost is \$10 each. They will apply only to the American Distilling distribution, and separate applications must be made if similar permits are desired by stockholders of other companies.

• **Another Melon**—The liquor authority's announcement that the whisky purchase permits would be issued came

...welcome news to stockholders of another distiller, since rumors of Park & Tilford's liquor-purchase melon (BW-Dec.25'43,p109) were confirmed recently at the company's annual meeting. However, the confirmation wasn't as satisfactory as many stockholders had hoped for, since the company delayed announcement of details because of changes in procedure suggested by the various regulatory agencies.

• Less Interest—This perhaps partly explains just why P. & T. common stock is still available at a price of around \$79, or some \$8 under its 1944 high, despite the possibility of a liberal dividend. But this isn't the only reason. For one thing, though P. & T. common since last fall has staged several quite spectacular moves upward, including a rise from \$30 to \$70 in less than two months, it has never seemed to have attracted such an enthusiastic following as American Distilling shares commanded.

Even when the stock, for example, was swiftly climbing to higher levels, because of the drinkidend rumors, it was still possible to find many avid participants in the 1943 liquor stock boom who weren't particularly interested.

• Little Turnover—This was because of the small amount of shares changing hands then. Such traders well knew that D. A. Schulte (of cigar store fame) had long controlled the company and thus they began to wonder if the seeming tightness of the floating supply wasn't actually more responsible for the stock's sharp rise than the demand for it.

Also, even some of those taking a flyer in the stock have been gradually losing their original speculative hopes because of reports indicating that Schulte, though a small purchaser of P. & T. common earlier in 1943, started to become an active seller in December.

• Sells Heavily—By the end of March, 1944, according to reports of the Securities & Exchange Commission, Schulte was the holder of only 9,152 shares compared with more than a 54,500-share, or almost 22%, interest that he held at the close of last November, when the stock was selling at around \$50.

This sharp reduction, moreover, has been brought about by the sale of 17,000 shares in December; 4,158 in January; 9,700 in February; and 14,500 in March at mounting prices which would conceivably have brought him as much as \$73 for the shares disposed of in December and as high as \$87 for that stock sold during the first quarter of 1944.

Also, it is a matter of record that Dunhill International, Inc., reputedly a "Schulte company," recently completed the sale of all its former holdings of 4,853 shares of P. & T. common.



How to hide two thousand men!

SNEAK two thousand men and all their supplies into a battle area. Move by night... bivouac by day... leave no trail for enemy planes to follow! It isn't easy... and unless every man of that two thousand knows his stuff and does it... none of them is safe.

And the Army teaches every man... shows him expertly planned and made movies that explain each important detail of bivouac routine... how to live off the land... how to move swiftly, silently—and secretly.

Never have movies done a greater training job... and never have Filmosound Projectors and Filmo Cameras been so widely and continuously used.

Literally thousands of training films, covering every phase of modern warfare, reel endlessly through Filmosound Projectors... to help give our fighting men the know-how and the high courage that win wars.

Bell & Howell Company, Chicago; New York; Hollywood; Washington, D. C.; London. Established 1907.



®Trade-mark registered

*Opti-onics is OPTICS... electrONICS... mechanICS. It is research and engineering in these three related sciences to accomplish many things never before possible. Today OPTI-ONICS fights... tomorrow it will work, protect, educate, and entertain.



Bell & Howell

MARKETING

Noses Counted

Bureau of Census checks ration book technique used in estimating population. Test at Mobile proves it's accurate.

Vital statistics in wartime are more than a source of local pride. They determine whether a city shall get more, or less, rationed gasoline, sugar, meat, etc., and whether, for example, it is entitled to a priority for a new housing project, movie theater, or hospital.

• **Nine Cities Surveyed**—To find out the current status of nine cities with war-swollen populations, the U. S. Census Bureau is taking a sample count of noses. This should go a long way toward answering local pleas for relief, and showing government officials and businessmen alike where they stand.

The cities being surveyed are San Diego; the San Francisco Bay area; Portland, Ore.; Seattle; Mobile; Charleston, S. C.; Hampton Roads, Va.; Detroit; and Los Angeles. The survey is under the wing of the President's Committee for Congested Production Areas (BW—Jul.31'43,p29), which is financing it with a special grant of \$250,000 from the executive funds.

• **Sampling Is Tested**—To the Census Bureau, the survey has particular importance because it provides the first full-fledged test of a sampling technique which the bureau hopes to extend to the entire country after the war.

Census experts believe they will be able to use this technique to obtain accurate vital statistics between decennial censuses on the basis of a 5% or smaller sample of the total population (BW—Aug.23'41,p32; Sep.12'42,p24).

• **Results in Mobile**—A preliminary population estimate is already available for one of the cities—Mobile.

The census test gives metropolitan Mobile a total population of 233,000 for the latter part of March, 1944. (This does not include members of the armed forces quartered on military posts or sailors on vessels in port.) This is an increase of 91,000—64%—since the 1940 decennial census.

• **Accuracy Proved**—The sample censuses also provide the Bureau of the Census with its best check to date on the accuracy of the population figures it compiles for the whole country from OPA ration book registrations (BW—Apr.15'44,p46).

As far as Mobile goes, the bureau seems to have hit it right on the nose. The bureau's Nov. 1, 1943, estimate for Mobile (based on registrations for Ration Book 4) was 227,763. The estimate for Mar. 1, 1943, was 232,936. Comparing this with the 233,000 figure obtained in the sample survey last month, and making allowance for a margin of error in both cases, the census people believe there has been only a small appreciable change in Mobile's population over the past year.

• **The Method**—This, roughly, is how the Bureau of the Census goes about counting noses:

In Mobile, enumerators listed the addresses of every dwelling unit in the city, block by block. Then they visited one dwelling unit in every seven in every block (a dwelling unit may be a private home, but it can also be an apartment in a large apartment house, half of a two-family house, etc.) In Mobile, a total of 9,000 dwelling units was visited. In this kind of survey, census experts figure their margin of error at a practical maximum of 3%; in two-thirds of the samplings it does not exceed 1%.

• **Sampling Is Varied**—In larger cities, a smaller proportionate sample is used. In Los Angeles, enumerators have followed the old crap game magic of "seven come eleven," taking the eleventh dwelling unit in every seventh block. This gives a total sample of 14,000 dwelling units—one in every 77 instead of one in every seven as in Mobile.

Although San Francisco is smaller than Los Angeles, a larger sample—17,000 dwelling units—is being used. The bureau has complicated reasons for this, which boil down to the fact that the population of a typical San Francisco city block tends to be more homogeneous than that of a typical Los Angeles city block. If the people in a given block are more like each other, a larger number of blocks must be sampled to get all the variations in population characteristics for which the Bureau of the Census is looking.

• **Scope of Data**—In addition to a straight count of noses, the census obtains information on family size and membership, sex, color or race, age, immigration and out-migration, and employment.

The census' biggest problem has been to recruit an adequate force of enumerators in each city without further taxing local labor markets. It has relied heavily on the part-time help of teachers and housewives and on returned veterans. In Mobile, where the job required around 50 enumerators, sailors' wives helped out. The bureau found them highly efficient. Its only regret is that it hasn't been able to inveigle any of them into its understaffed Washington office.

MARS SETTLES WITH OPA

Retrial of OPA's treble damage suit against Mars, Inc., for overcharges resulting from reduction in the weight of Mars candy bars did not come off this week as scheduled. For Mars already had settled the case last week before two U. S. district court judges in Kansas City—for \$515,000, less than



Enumerators are sworn in at Portland, Ore., before beginning a "sample census" of a four-county area to gage the war-swollen population and its needs. Like surveys are being conducted in eight other war-busy cities.

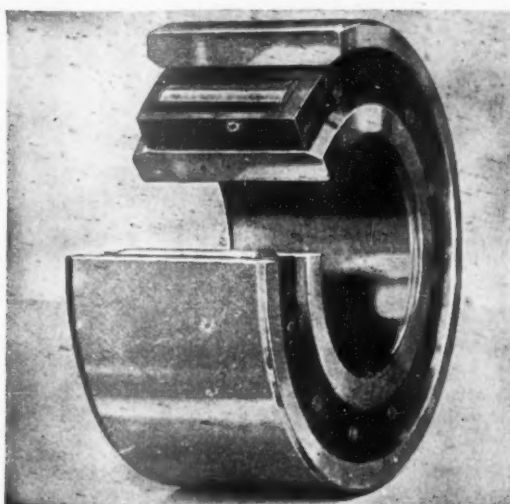
NEW ROLLWAY BEARINGS

**Earn 20 Times Their
Investment Cost Annually**

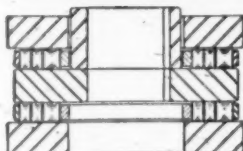
**Let Us Analyze the
Possibilities of Rollway Bearing
Equipment in YOUR Plant**

Think of it—just four Rollway bearings (two Couch Roll bearings and two Pressure Roll bearings) actually earned \$250.00 per day or \$75,000.00 per year for one plant. And when we say earned, we mean increased production that yielded a \$75,000.00 gain in annual profit. *More than 20 times the cost of the bearings*, to say nothing of an average saving of 31 horsepower.

We don't say that every plant can show comparable gains simply by installing Rollway bearings, but we do believe that Rollway's right-



Type CS
Double Width
Radial



Type DT
Double Acting
Thrust

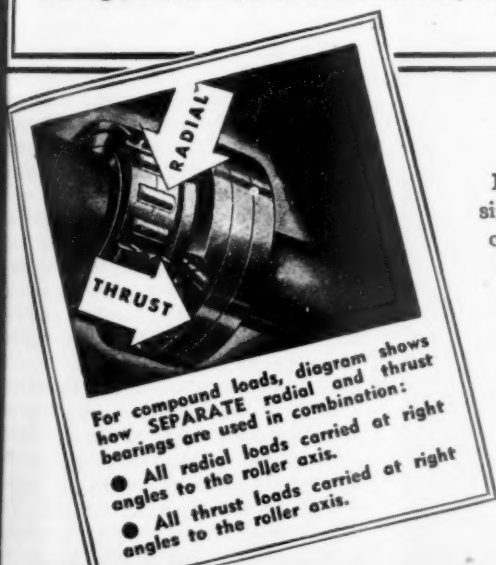
angle loading of bearings will give the average plant:

1. Marked increase in bearing life.
2. Marked improvement in the speed-load-life ratio of bearings:
3. Marked decrease in bearing replacements, shaft wear and maintenance time.

Simplifies the Load...

Rollway's right-angle loading splits the load into its two simple components of pure radial and pure thrust—each carried by a separate roller assembly. It eliminates all compound loads, all oblique loads and resultants, insuring greater load capacity in any given dimensional limit. There's no pinching effect to force rollers out from between the races, hence less roller-end wear-back and less rubbing or sliding friction. Starting and running torques are both lower; power consumption goes down.

Write today; let a Rollway engineer make a free bearing analysis of your plant; let us estimate the savings or earnings you might reasonably expect from Rollway's Right-Angle Loading.



ROLLWAY

BEARING COMPANY, INC., SYRACUSE, NEW YORK

BUILDING HEAVY-DUTY BEARINGS SINCE 1908

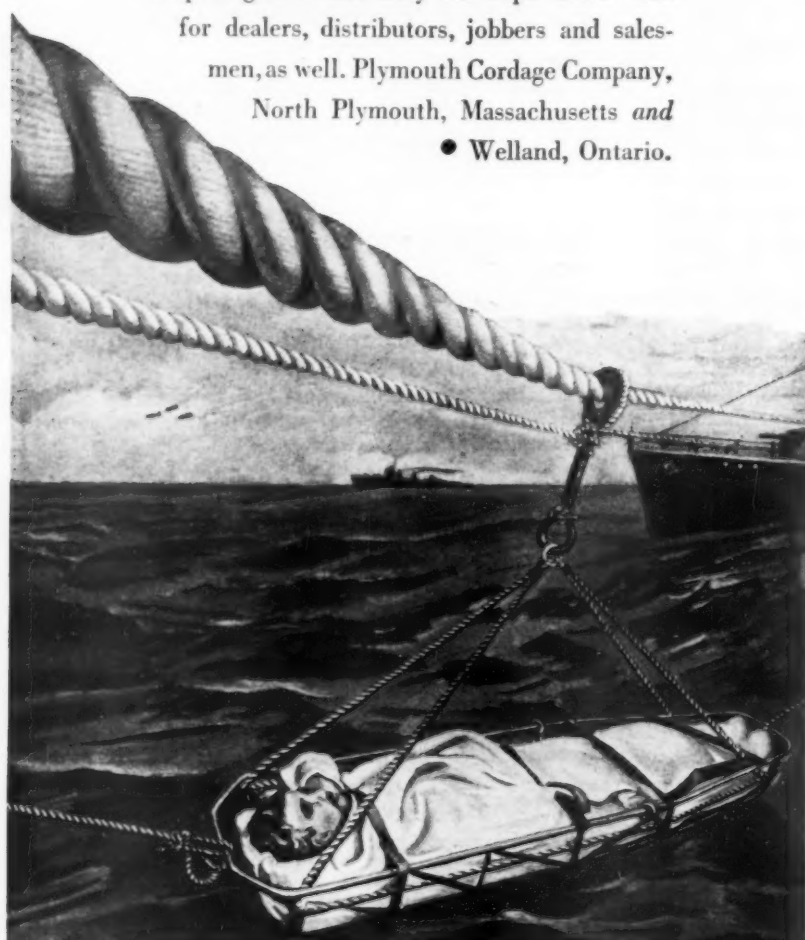
BEARINGS

PRIORITY PASSENGER...

There's no substitute for rope when rope is *needed!* It fights—and performs many duties wherever our men are. Because of increasing needs of the services, rope is still scarce and *rope conservation* is still as important as it ever was.

Rope user, or not, write for Plymouth's new "WAR EMERGENCY SERVICE BOOK NO. 4."

It presents the *true* rope picture. It is a helpful guide—not only for rope users—but for dealers, distributors, jobbers and salesmen, as well. Plymouth Cordage Company, North Plymouth, Massachusetts and
• Welland, Ontario.



PLYMOUTH

THE ROPE YOU CAN TRUST

BINDER TWINE • TYING TWINE



half of the \$1,235,692 OPA sued Mars paid off despite the fact that the original decision (BW—Jan. 22, 1942, p88) was in favor of the candy company. But there was another more persuasive element in Mars' deliberation. That was the epochal decision of the U.S. Supreme Court which upheld an injunction prohibiting Mars from reducing the weight of its bars before March, 1942, levels (BW—Dec. 27, 1941, p38).

OPA sought damages for overcharges made from Aug. 1, 1942, to Dec. 31, 1942, on six kinds of candy bars in which the weight had been reduced and the price administrator demanded a retrial when OPA lost the case in January.

Mars' defense was that its bars are sold on a count-per-box basis, and that prices have not been increased.

Leniency Urged

Textile industry auditors hear appeal for low penalty for confessed violators of OPA price and quality regulations.

Although the textile and clothing industries themselves have not so much as dropped a stitch over OPA's recent crackdown on price violations and quality deterioration in clothing (BW—Apr. 22, 1944, p89), there have been repercussions from adjacent groups.

• **Auditors Sound Warning**—First to sound off were the men who audit the books of the textile and clothing companies now under investigation. Accountants have been warning their clients that they will be in a dangerous position if they don't discontinue the various illegal transactions which contribute to the inflationary cost of clothing.

At a meeting of the Downtown Textile Credit Group, Inc., in New York last week, a speaker stated that the black market "is rampant in every branch of the industry, from converters and jobbers to garment manufacturers—and the amount runs into millions."

• **Leniency Urged**—The fact that a substantial number of these companies are not financially able to survive treble damage suits, which OPA customarily files against violators, led to the suggestion at the auditors' meeting that OPA should be given power to use discretion in fining concerns which voluntarily disclose violations.

This suggestion stirred up a storm of protest from the Textile Workers Union of America (C.I.O.). Emil Rieve, union president, wired Price Administrator

sued to
fact the
Jan. 22
undy co
more pe
liberation
on of
upheld
from
ars be
Dec. 27
vercharge
Dec. 2
bars of
reduced
demanded
e case

Chester A. Bowles opposing any such
emergency and advocating full punish-
ment for all violators.
OPA's Record—In New York City,
some of 80% of the garment industry,
the regional OPA office has disclosed
that 84 textile firms are now under in-
vestigation—in addition to twelve cases
pending in the U. S. district attorney's
office. Also on the books are 58 crim-
inal prosecutions in which seven persons
were sentenced to jail terms ranging up
to 60 days, and fines of \$203,000 col-
lected, while OPA has collected \$800,
000 from 143 civil treble damage cases.

In view of this record, it is not likely
that OPA will follow the recommenda-
tions of the auditors to use discretion
with the confessed violators.

Administrative Problem—While the
emergency order would allow OPA to fine
relatively poor firms on a basis of ability
to pay, it would make general adminis-
tration woefully complex. And it is
generally conceded that a substantial
number of textile and dress companies—
most of which have been making unpre-
cedented wartime profits—have large
contingency funds.

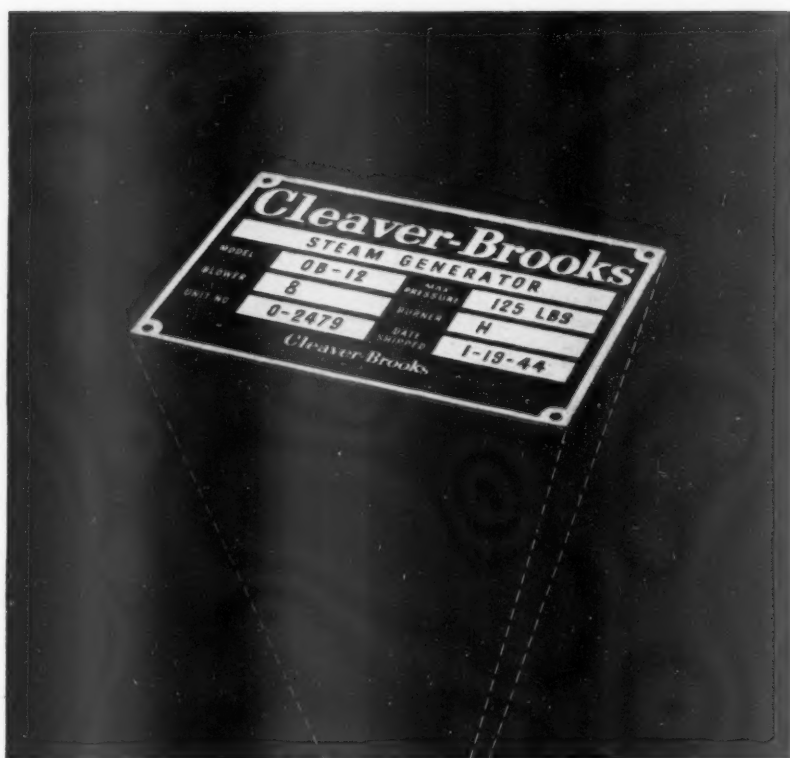
Some of the funds, according to trade
gossip, are earmarked for payment of
treble damages to OPA—or at least, out-
of-court settlements at a discount.

TOMORROW'S PRINTING

Everyone is talking about a possible
postwar shortage in printing capacity
for the billions of pieces of printed
literature that will be needed to sell
and service postwar goods—to say noth-
ing about the astronomical number
of printed forms that will be required
in postwar manufacturing and distri-
bution—and the American Type Found-
ry Sales Corp., Elizabeth, N. J., is
doing something about it.

Beginning this month, it is offering
every printer in the country a "Free
Kit of A.T.F. Printers' Analysis Forms
How to Plan Now for Tomorrow's
Printing," which includes a generous
supply of material for determining:
(1) the probable postwar requirements
of each customer of the printer, re-
lated to terms of hourly production on
various types of presses; (2) possible
printing requirements of each prospect
of the printer, reduced to similar terms;
(3) present printing equipment of the
printer; (4) postwar printing equipment
needed; (5) new type faces needed for
tomorrow's work.

A.T.F. also is offering printers the
A.T.F. Civilian Priority Delivery Plan"
covering the reservation and postwar
delivery of new presses, cutters, perfor-
ators, and other equipment by payment
of a refundable deposit on postwar de-
livery.



A name plate is a little thing
BUT—

A NAME-PLATE is a little thing
but its real importance may be
far beyond its accepted purpose of
identification of the product and
its manufacturer.

In its larger sense it is a signa-
ture—an implied token and pledge
of the integrity of the signer. Every
time it is affixed to a machine, a
unit of equipment, or other prod-
uct, an industrial reputation hangs
in the balance.

Cleaver-Brooks is constantly alert
to this major significance of their
name-plate. We do not apply it
until we are sure that the machines
and equipment, bearing our name,
will deliver all, and even more, than

is expected of them in performance
and service. Essentially it is a "trade-
mark" asking that you think well
of us and the products we make.

The steam generators of our
manufacture—the special equip-
ment for the armed forces in the
field for water distilling, for disin-
fecting, sterilizing and other hygi-
enic needs—the materials heating
equipment for the construction
industry—all have a reputation for
peak efficiency and performance.

You can be sure that the new
products we have perfected for
peacetime use, will fully meet the
implied "specifications" of the
Cleaver-Brooks name-plate.

Cleaver - Brooks

MILWAUKEE 9, COMPANY WISCONSIN

★ CLEAVER-BROOKS PRODUCTS INCLUDE: ★



Steam Generators



Food Processing Equipment



Tank Car Heaters



Oil & Asphalt Heaters



Special Military Equipment

Use These *Specialists* For Small Pressing Jobs

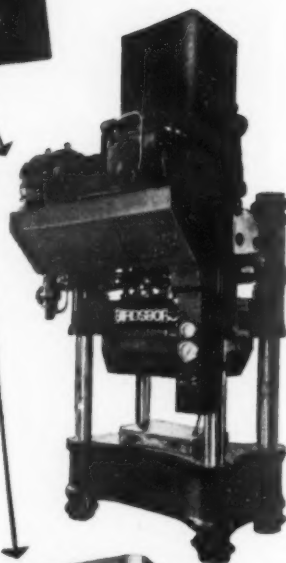
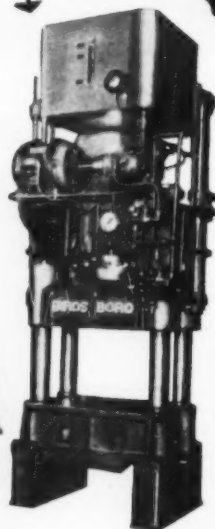
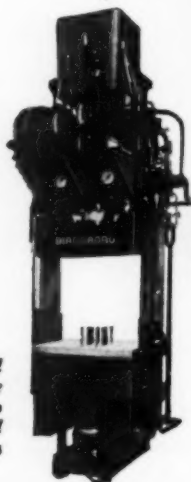
A special segment of the Birdsboro hydraulic press line is this 150 to 750-ton group, built for the aircraft and allied metal working industries to mass-produce small metal parts.

It will pay you to consult Birdsboro the next time you need a small part press. Our experience in helping hundreds of other hydraulic press users solve their problems is ready to serve you.

Birdsboro Hydraulic Metal Working Presses are built in sizes from as small as 150 tons to as large as 5500 tons.



For additional information write for the Birdsboro Hydraulic Metal Working Press Catalogue.



Birdsboro Steel Foundry & Machine Co • Birdsboro, Pa.

BIRDSBORO
HYDRAULIC PLASTIC PRESSES

Message to Joe

Service publications have blossomed, and advertisers are missing no chance to get their story across to the soldier.

There's no more competitive segment of the competitive publishing business than that which caters directly to the interests of officers and enlisted personnel of the armed forces—the service publications.

• **Wide Range**—There are two extremes: those which are sponsored, wholly or partially subsidized, by some branch of the armed forces, and those which are owned, staffed, and promoted by civilians and enjoy no official blessing (and which, occasionally, have to live down a brisk official castigation). In between are magazines and newspapers whose service connections range from very close to very tenuous. In the middle category are the numerous publications put out by various associations of Army and Navy personnel and well-wishers.

Army-sponsored publications have only an academic interest for advertisers. Since 1932, the Army appropriations act has provided that no officer or enlisted man on active duty can draw Army pay while working on the staff of a publication that accepts advertising from firms which do business with the government. (Since practically everybody does business with the government, this has been generally regarded as a ban on all advertising.)

No such ban applies to the Navy—a fact that annoys staff members of Army publications.

• **They're Not Tainted**—The advertising ban effectively rules out any talk of commercialism in Yank, Stars and Stripes, and a host of other Army publications (including such technical journals as Air Force, Army Motor Ordnance Sergeant, and the Military Review).

Almost all the magazines published by military associations accepted advertising before 1932. Four that have demilitarized themselves continue to sell space. These are the Military Surgeon, the Quartermaster Review, Army Ordnance, and the Military Engineer. Four others—the Infantry Journal, the Field Artillery Journal, the Coast Artillery Journal, and the Cavalry Journal—have foregone advertising in order to retain the benefits of closer association with the services.

The Infantry Journal (with five active Army officers on its staff—Gen. George C. Marshall once was an associate editor)

oe

ons hav

isers an

get the

ier.

e segmen

g busine

y to the

d perso

service pu

two te

sored, an

by some

and thos

promote

al blessi

ve to lea

n). In be

ewspape

ange fro

the mi

s publi

ociation

and we

ns hav

or adv

y app

t no of

duty ca

on the

cepts a

busine

practica

the go

ally re

ing.)

Navy

bers o

adver

ny tam

ars an

ny pub

techni

Motors

Military

published

ated at

at has

ue to

ary Se

. Amer

ngineer

al, the

nderw

ing Ju

40-pa

monthly

will c

no ad

er. The

bulk o

Leath

er's a

adver

ting

is se

lf-sup

porting

ex-

cept

that

staff

mem

bers

draw

their

reg-

ular

ser

vice

pay

from

the

Mar

ine

Cor

ps.

The

mag

now

run

s to

80

pag

es,

28

of

th

em

de

v

ot

ed

to

ad

ver

ti

ng

re

ce

pt

in

g

ar

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o

u

nd

er

o



SPREADING THE DRINKS

Two developments on the parched liquor front promise relief for a few thirsts. At New York, Gimbel's department store features the first American "potato" whisky (above); at

Washington, a retailer issues his own private ration card (below) to service regular customers with a fifth of liquor a month. The new blend—80% neutral spirits distilled from potato culls plus 20% straight whisky—is retailing for \$3.32 a fifth.

$\frac{1}{2}$ - P - 5 - Q JANUARY	$\frac{1}{2}$ - P - 5 - Q FEBRUARY	$\frac{1}{2}$ - P - 5 - Q MARCH	$\frac{1}{2}$ - P - 5 - Q APRIL
COSTA'S WINES AND LIQUORS 3417 - 11th STREET, NORTHWEST Phone: ADams 6590			
SHARE THE WHISKEY PLAN			
$\frac{1}{2}$ - P - 5 - Q MAY	Print full Name _____ Address _____ Telephone No. _____ This Card is Issued to Regular Purchasers of Whiskey of this Store Only		$\frac{1}{2}$ - P - 5 - Q DECEMBER
$\frac{1}{2}$ - P - 5 - Q JUNE	Serial No. _____ Signature _____ This card entitles above person to one bottle of whiskey per month.		$\frac{1}{2}$ - P - 5 - Q NOVEMBER
$\frac{1}{2}$ - P - 5 - Q JULY	$\frac{1}{2}$ - P - 5 - Q AUGUST	$\frac{1}{2}$ - P - 5 - Q SEPTEMBER	$\frac{1}{2}$ - P - 5 - Q OCTOBER
DISTRICT'S FIRST LIQUOR RATION CARD			

few extra pin-up girls, the ads resemble those in any popular magazine. A Leatherneck rule bans any advertiser who does not have anything, or will not have after the war, to sell to a marine. This does not freeze out all industrial advertisers. Recent issues carry ads for Minneapolis-Moline implements and Wright engines.

Leatherneck has two problems with advertising content: (1) achieving technical accuracy, particularly in ads depicting any phase of marine life, (2) discouraging advertisers' boasts that their product is winning the war single-handed.

• **Circulation Gained**—The 80-year-old Army and Navy Journal is a good example of the durability of some of the commercial publications. A weekly newspaper for officers and the higher ranks of enlisted men, the Journal had a net paid circulation of 8,277 at the end of 1939. Today it is 26,836. The 65-year-old Army and Navy Register, a weekly for commissioned officers, has a circulation of 14,000.

Our Navy, published monthly, is 46 years old. Other magazines in the field concede it a high degree of official recognition. The advertising rate of \$518.50 for a one-time full-page inser-

tion is based on a guaranteed circulation of 125,000. Our Army, published since 1928, also is a monthly, with a press run of 72,000 copies and a \$5 page rate. The U. S. Coast Guard Magazine, another monthly, has a circulation of 26,500 and a page rate of \$200.

• **War Babies**—Among the service publications that have sprung up during this war, the Army Times, a weekly tabloid, claims the most meteoric rise. The Times was established Aug. 1, 1940 (the day the Senate approved the President's request to call up the National Guard for active service). It claims a circulation of 178,000—75% of it to men in the services. Advertising is 75¢ a line, open rate.

In still another class are the host of Army camp and post newspapers. One estimate puts their number as high as 1,000—including both those which carry advertising and those which don't. Most of those which carry advertising are owned by local publishers. The Reveille at Camp Shelby, Miss. (one of the oldest camp papers), is owned by the Hattiesburg American; the Fort Call at Fort Dix, N. J., by the Perinton Times-Advertiser.

The Army Newspaper Group in New York City represents 70 of these papers with circulations ranging from 2,000 to 100,000 apiece, and totaling 1,000,000. Rates range from 75¢ to \$7.50 an inch. One estimate places the volume of national advertising which the group handles at well over \$1,000,000 a year. Local advertising in the same 70 papers totals close to \$10,000,000.

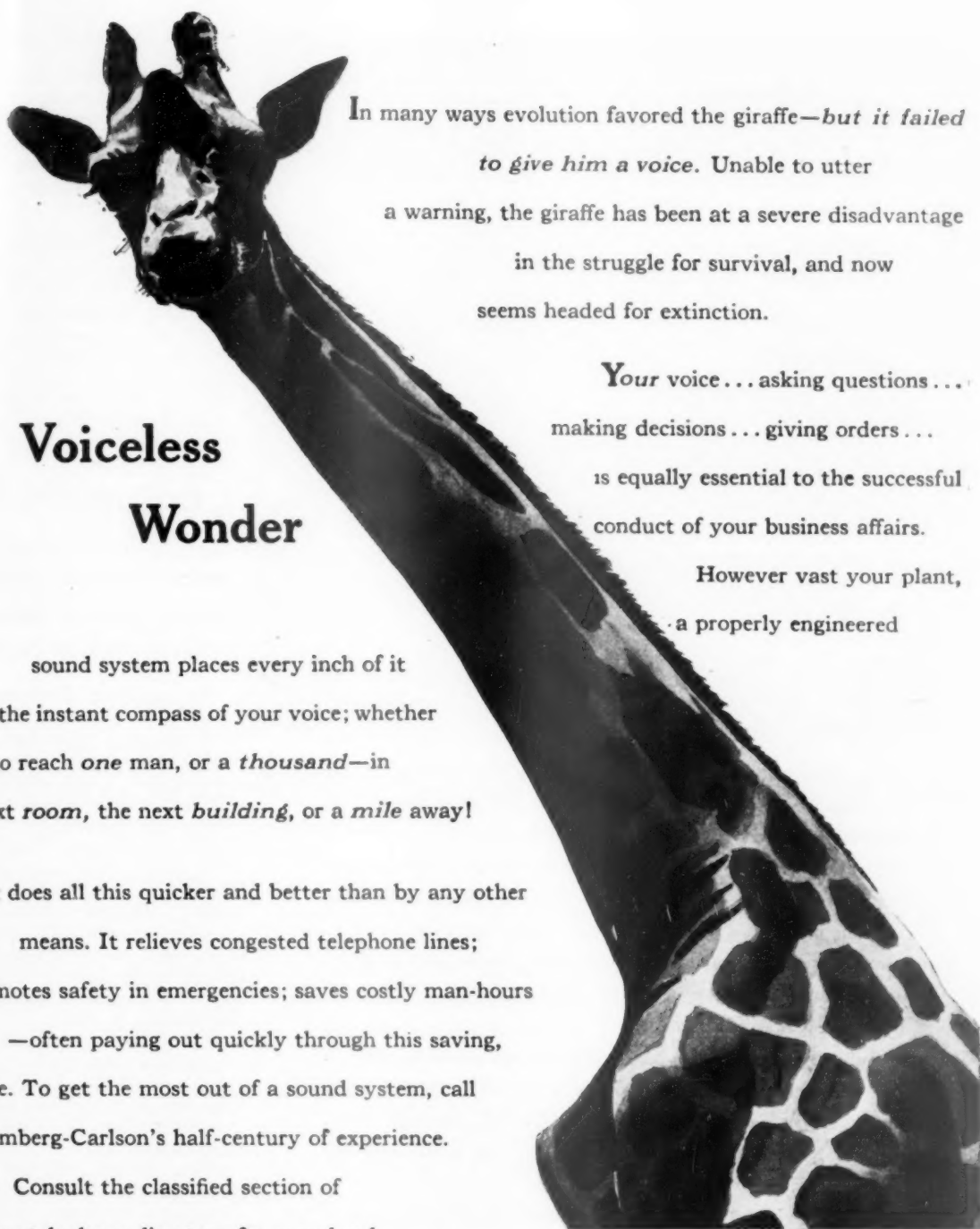
NO MILWAUKEE TRIBUNE

The Chicago Tribune's Col. Robert R. McCormick, out to answer what he thinks is Wisconsin's crying need for another newspaper, last week found WPB decisively uncooperative.

The Tribune had appealed to WPB for 22,872 tons of newsprint to start a daily newspaper in Milwaukee (BW Apr. 22 '44, p. 94), basing its appeal on the claim that Wisconsin papers, preponderantly pro-Willkie, had been repudiated along with the defeated candidate in the primary election.

WPB's refusal letter to the Tribune stated that that agency does not concern itself with "editorial policies, political opinions, or the service rendered by newspapers." Action based on the feeling that "a particular political viewpoint was not being presented adequately would constitute censorship and would abridge freedom of the press which is guaranteed by the Constitution," declared WPB.

L-240, which governs newsprint consumption by newspapers, permits usage



In many ways evolution favored the giraffe—but it failed to give him a voice. Unable to utter a warning, the giraffe has been at a severe disadvantage in the struggle for survival, and now seems headed for extinction.

Voiceless Wonder

Your voice... asking questions...
making decisions... giving orders...
is equally essential to the successful
conduct of your business affairs.

However vast your plant,
a properly engineered

sound system places every inch of it
within the instant compass of your voice; whether
you wish to reach *one* man, or a *thousand*—in
the next *room*, the next *building*, or a *mile* away!

It does all this quicker and better than by any other
means. It relieves congested telephone lines;
promotes safety in emergencies; saves costly man-hours
—often paying out quickly through this saving,
alone. To get the most out of a sound system, call
on Stromberg-Carlson's half-century of experience.

Consult the classified section of
your telephone directory for your local

Stromberg-Carlson Sound Equipment Distributor. Or write for Booklet No. 63.

Sound Equipment Division, 100 Carlson Road, Rochester 3, New York.

STROMBERG-CARLSON



STRAIGHT-LINE COMMUNICATION SAVES MANPOWER • SPEEDS THE WORK TO VICTORY

FOR RUBBER THAT'S TOUGHER...

Hydrated Alumina C-741



Gas mask face blanks strip from their complicated molds without tearing; rubber reinforced with Hydrated Alumina C-741 has high tear strength at elevated temperatures. The rubber also ages exceptionally well, retaining its high strength. Gas masks will have greater dependability when called on in service.

Equally vital in these wartimes, this reinforcing pigment helps make rubber go further. You get more volume of finished product per pound of crude rubber. Higher pigment loadings are often possible, and additional diluents can be used in many applications, while retaining the physical properties required by Federal specifications.

Rubber compounded with Hydrated Alumina C-741 is high in resilience and rubbery properties with high pigment loadings. You get good tackiness of uncured stock, low heat build-up and good heat transfer. The rubber has good dielectric properties.

If you are making any rubber products for military uses, it may pay you to test the use of Hydrated Alumina C-741 as a reinforcing pigment. We'll gladly send you samples for this purpose. Write ALUMINUM COMPANY OF AMERICA (Sales Agent for ALUMINUM ORE COMPANY) 1935 Gulf Building, Pittsburgh 19, Pennsylvania.

ALUMINUM ORE COMPANY



Aluminum and Fluorine Compounds

of only 25 tons per quarter for papers.

As a precedent for its application, Tribune had cited the case of the San Diego Journal, recently started in California, which the Tribune describes as pro-New Deal. WPB denied authorizing newsprint for this paper.

Actually the new San Diego newspaper never applied to WPB for a quota, simply took over that of a publishing plant with a commercial shop quota. The publisher of the newspaper has retained the allotment, taking advantage of a loophole. WPB defines a newspaper as one which is admitted to the mails as second class matter; and the San Diego Journal simply failed to take out a second class mailing permit.

Consumers Polled

Scripps-Howard survey aimed at prying out the postwar buying plans of housewives in areas served by its papers.

In compiling promotion aimed at retailers in 15 of the 18 cities where their papers are published, the Scripps-Howard Newspapers have turned out a presentation which constitutes one of the most comprehensive postwar market studies in circulation.

• **Who Will Buy What?**—The study attempts to show who will be in the market for what after the war—where. It covers Denver, Knoxville, Evansville, Birmingham, Memphis, Cleveland, Washington, Indianapolis, Houston, Ft. Worth, El Paso, Cincinnati, Columbus, Pittsburgh, and San Francisco.

Questions used by the Scripps-Howard researchers were drawn up by the National Retail Dry Goods Assn. The run heavily to inquiries concerning the postwar market for home construction and furnishings.

• **New Homes Planned**—More than 30% of the people in El Paso, San Francisco, Knoxville, Washington, and Indianapolis intend either to build or buy a new home after the war. In El Paso, 30% intend to build, 14.5% to buy; by contrast, only 10% in Washington intend to build, 24.4% to buy.

Other cities showed somewhat less interest in new housing, with Evansville having the least ambitious plans: 11.5% intend to build, 7% to buy.

• **Many Want Furnishings**—Taking the 15 cities as a whole, 19% of the 6,000 people interviewed intend to refurnish interiors after the war; 17% plan new floor coverings; 16% new plumbing fixtures.

12% new heating equipment; and will seek new roofing, light fixtures and screens.

on the ticklish question of how much improvement consumers expect in post-war products, 69% expect drastic improvement in radios, 63% in automobiles, 57% in refrigerators, 56% in washing machines, 55% in washing machines, 53% in furniture, 52% in heating, 51% in heating, 50% in kitchen cabinets, and 49% in house furnishings.

Would Buy 1940 Models—In Cleveland, 34% of 500 interviewed said they would be interested in buying automobiles as soon as they are available; only 15% want washing machines, small appliances, and radios. In Indianapolis, 71% said they would buy 1940 models of these goods immediately if they were not available. Fewer are so willing to accept prewar models in other cities—only 35.2% in Denver.

Interestingly enough, less than half of the women in the various cities approve of self-service in housewares, women's clothing, clothing, drugs, furniture, shoe departments. But 71% favor food.

New York trial court last week dismissed a stockholders' case against the Dreyfus Corp. of America, in which the company's weekly radio program starring soprano Jean Tennyson (wife of Dr. Camille Dreyfus, chairman of the board) and another employment contract with Dr. Henri Dreyfus, chemist, was challenged. Miss Tennyson receives \$500 a week, Dr. Henri Dreyfus \$30,000 annually. The court ruled the board of directors "had exercised honest business judgment," and their conduct . . . did not constitute negligence, waste, or improvidence."

New York's high fashion designers have turned even more resolutely than ever to artistic skimping on gowns and millinery since the recent furor caused by Nazi magazines promoting cheap fabric and labor consuming fashions. A few susceptible milliners copied enemy styles, published in "Marie Claire" and "Plaire," ostensibly printed in Lausanne, Switzerland, thus easily evading customs inspection. Before the charge was exposed, Harper's Bazaar recently reprinted the styles here.

The Ashland (Ky.) Dry Goods Co. has a unique record in having decreased its advertising in the Ashland Independent exclusively to war bond advertising and other war campaigns in one whole year. Although no merchandise was advertised, business increased 42% in the first six months of the year.

HOW
48 man-hour job
was cut to **3**
*with Electric
Truck*



Modern Handling Methods Saved \$36.00 per Carload

● Many executives engaged in war industries are gaining knowledge they will be able to apply profitably in the future to effect savings in distribution costs. These low costs will give them a strong competitive advantage.

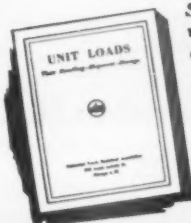
For example, a warehouse that stores cases of small arms ammunition has speeded up operations and reduced costs by introducing the use of modern methods of material handling.

This has also made possible better utilization of storage space.

The job of unloading cases from a railroad car, hauling to and tiering in storage formerly required a crew of 8 men 6 hours—a total of 48 man-hours.

Now—with modern "unit loads" handled by an electric fork truck—the job is being done by 2 men in just 1½ hours—a total of only 3 man-hours. This means a saving of \$36.00 in labor costs for every carload stored.

MONEY-SAVING BULLETIN—FREE



Studies of modern methods of material handling, such as were used in the case above, have been made by The Industrial Truck Statistical Association. The results—with revealing case histories and illustrations—have recently been published as a bulletin titled, "Unit Loads—Their Handling—Shipment—Storage." Write the Association for your free copy.

THE INDUSTRIAL TRUCK STATISTICAL ASSOCIATION
208 South La Salle Street • Chicago 4, Illinois



MANUFACTURERS OF TRUCKS: AUTOMATIC, BAKER, CRESCENT, EASTON, ELWELL-PARKER, LEWIS-SHEPARD, MERCURY, YALE. BATTERIES: EDISON, EXIDE, PHILCO. BATTERY CHARGING EQUIPMENT: ELECTRIC PRODUCTS, HERTNER

DUST CONTROL



THE SLY DUST FILTER

located on the roof of this aeronautical plant, cleans air laden with dust resulting from various manufacturing operations in the plant.

The air is drawn through ducts to the filter and thoroughly cleaned by passing through Cloth Screens. Even the finest dust—invisible to the naked eye—is removed. Thus, the atmosphere in the plant is kept clean and good working conditions maintained.

57 industries are now using Sly Dust Filters collecting 111 kinds of dust. Over 5,000 installations. May we discuss your dust problem with you?

THE W. W. SLY MFG. CO.

4749 Train Avenue
Cleveland 2, Ohio



LABOR

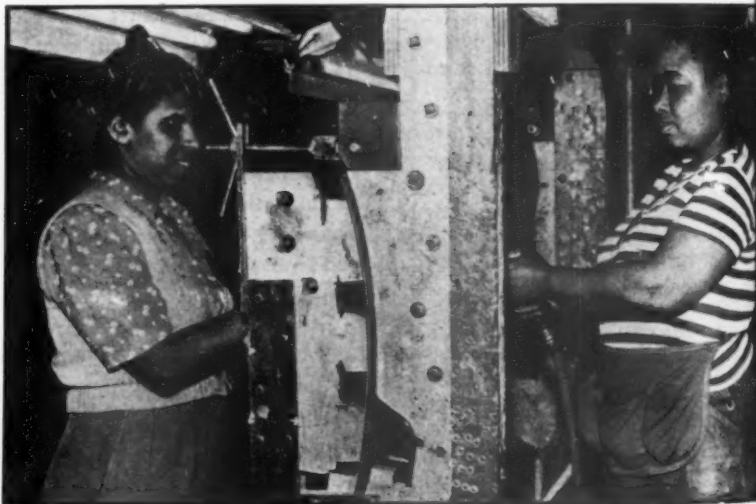
Pact Broken

Ford of Canada dissolves U.A.W. contract when workers strike. Company is castigated by Windsor mayor, legislators.

A dispute which broke out at the Ford Motor Co. of Canada plants in Windsor, Ont., last week quickly moved to the bare-knuckle stage when a strike was followed by the company's canceling of its contract with the C.I.O. United Automobile Workers union.

• **Official Backing**—Some 10,000 of the strikers, gathered in Windsor's City Market, heard two members of the Ontario Parliament and Mayor Arthur Reaume of Windsor give them verbal backing. "Public opinion is with you and make sure you keep it there," Reaume told the strikers. "The president of the company (Wallace Campbell) saw fit to spit in the face of the government. The government has more power and authority than Campbell will ever have."

George Bennett, one of the legislators who addressed the mass meeting, characterized the Ford employees as "championing the right of workers by fighting against tyranny and coercion."



RHYTHM RIVETERS

After relatively little experience, two women are contenders for the speed record in aircraft riveting. Elizabeth Vernando and Cleo Glover were pro-

The tieup began Apr. 20, when day shift workers filed out in a "holiday" protesting company method of handling grievances. An hour later Campbell announced that the bargaining contract was dissolved in its entirety, the action being based on one provision providing for abrogation in event of unauthorized strikes.

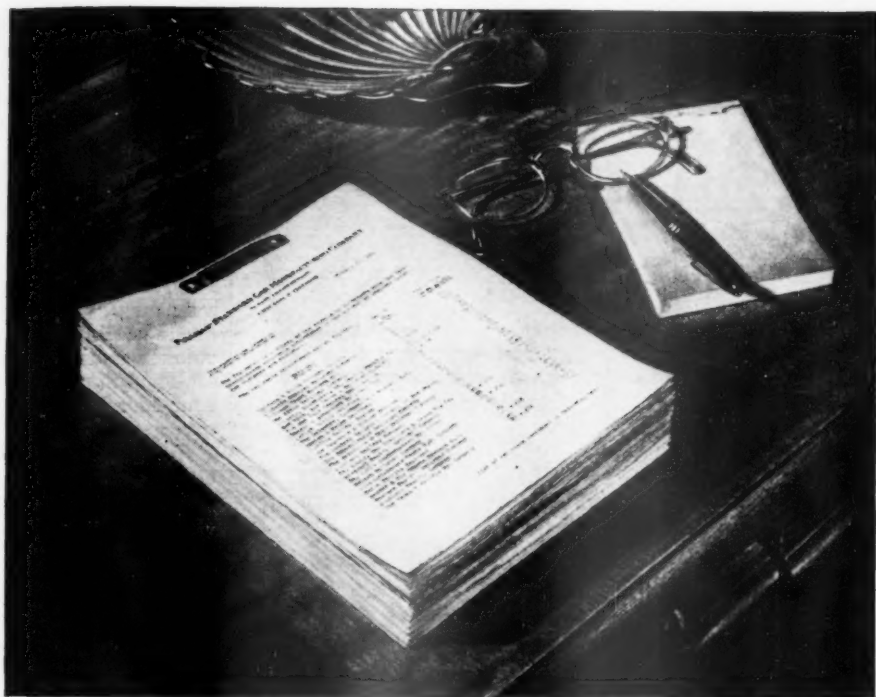
The night shift of about 7,000 employees then joined the walkout. In the prewar days, a string of such plants began to shut down, because of lack of outlet for their parts. First to close was Windsor's Gottfredson Ltd., which sent 500 workers home. Dozen others curtailed operations.

• **Familiar Pattern**—Toronto hastened Canadian War Labor Board conciliators to Windsor, and he began discussing in separate meetings with both sides.

The familiar pattern of charges and countercharges soon appeared. The union's claims of unsatisfactory grievance procedure were answered by company declarations that shop stewards and committeemen had ceased coming to work when they left their benches to investigate grievances, were spending disproportionate time on them.

Excessive time spent on grievances led to recent discharge of four strikers, a move which evidently precipitated

duction trainees only a year ago. Recently they became the champions at Lockheed Aircraft, Burbank, Calif., by driving 104 rivets in bomb bay doors in two minutes flat. To do this, they say, the team must have rhythm.



TOP EXECUTIVES of 39 leading railroad systems, representing 71 Class I railroads owning 92% of the country's passenger cars, created this re-

port. Its pages blaze with bright visions of better postwar transportation—with plans to give you new conveniences, greater comfort, more for your money.

Railroad Leaders' Digest

A report on plans for your postwar comfort

It's your job, the railroads' job, our job—to win this war as quickly as possible! We all agree on that.

No industry has met the challenge of war more ably than the railroads of America. Yet even in the midst of the vast responsibilities of wartime transportation, railroad executives are thinking about after the war—studying how they can give you better service, greater comfort. They said so to us—in personal interviews. Their ideas, their ideals, the goals they hope to attain—there they are, told in this Digest.

One vital fact shines forth from that Digest: These men agree that greater comfort for passengers will be achieved by means of improved postwar versions of modern lightweight trains.

To perfect those trains will take time; money, painstaking, hard work—and materials not now available. This is a process of evolution—not revolution.

To aid and guide that evolution will be Pullman-Standard's job. Without diminishing our wholehearted participation in the war effort, we shall study the Digest's ideas, and develop our own—shall compare, combine, improve, in order to produce new and practical designs that will add to the pleasure of your trip in trains that are faster, smoother-riding, more economical to operate.

In those new and better trains you will find many modern improvements. In them you will ride in greater comfort. In them you will see your new era of Better Transportation.

Buying War Bonds—and keeping them helps prevent inflation!

PULLMAN-STANDARD
CAR MANUFACTURING COMPANY

CHICAGO, ILLINOIS

Builders of America's First Modern Streamlined Train

In addition to railroad passenger cars, Pullman-Standard designs and manufactures freight, subway, elevated and street cars, trackless trolleys, chilled tread car wheels and other railroad equipment.

Offices in seven cities . . . Manufacturing plants in six cities



One of Canada's Largest Manufacturing Firms Invites Inquiries from U.S. Companies.—Is in position to Manufacture Additional Lines of Machinery, Equipment and Appliances.

INGLIS can manufacture additional machinery, equipment, appliances and precision products, in its large and modern plant in Toronto. Inquiries from responsible manufacturers in the United States are invited. We can assist you in the development, engineering and manufacturing of products that fit in with our facilities. At present we are operating the largest small arms plant in the British Empire, a modern steel plate fabrication shop, and machine shop for medium to medium-heavy lines.

Inglis manufactures its own products and those of its associated companies, including pumps, forging hammers and presses, boilers, pressure vessels, glass-lined tanks, marine engines, etc.

If desired, Inglis can also handle the servicing and distribution of your products.

Your Inquiry Will Be Treated in Strict Confidence.

*Address Your Letter to
"Personal Attention of The President"*

INGLIS PRESENT PRODUCTS INCLUDE:

Several types of Machine Guns • Automatic Pistols • Gun Mounts • Optical Apparatus • Precision Gauge Blocks Torpedo Parts.
Turbines, Marine Engines and Machinery for the Oil, Mining, Steel, Pulp and Paper and other Basic Industries.



As many as 17,000 men and women are employed by Inglis at peak production periods!

JOHN INGLIS
Co. Limited
TORONTO
CANADA

walkout. At a mass meeting the
ists pledged to stay out until the
ards were reinstated, until the com
was reinstated, and until the Cana
labor board had ironed out the g
ance differences.

● **Claims No Strike**—At De
U.A.W.'s president, R. J. Thomas
that inasmuch as the contract had
abrogated, there was no strike—that
men simply were not working with
a bargaining agreement. He accused
company of "high-handed" action.
the same time, he promised that
union would try to bring about a
sumption in production, adding that
doubted whether the men would
turn to work without a contract.

An unanswered side of the situa
was what part, if any, might have
played in the contract cancellation
the Ford Motor Co., at Dearb
There has always been a potent
tight linkage between the Amer
and Canadian companies, by reason
like product and the fact that H
Ford is chairman of the Canadian c
pany's board. But it has been gene
understood that the administration
the two firms function quite indepe
ntly of each other.

● **The Relationship?**—However,
considerable stock interest which
Ford family holds in the Canadian
pany makes it impossible to rule ou
interrelationship of strength, if
were desired. Because both firms
with the same union, face the
labor problems, it would not be unli
that the American Ford company w
have, at least, been consulted be
Canadian management took its de
action—although it does not neces
follow that the Dominion operatio
being used as a guinea pig.

In any case, American execu
circles were generally highly intere
in the Windsor maneuver. Shoul
prove a successful means of attain
management ends, it might like
echoed soon on the other side of
Detroit River.

The contract was first drawn in
1942 (BW—Jan.24'42,p60), a half
after the Detroit company first en
relationships with the U.A.W. (B
Jun.28'41,p40). Since then the W
sor contract has been renewed to
and was due to expire at the end of
year.

● **British Pact**—Last week, another
affiliate, the British Ford Motor
Ltd., signed its first union pact.
agreement, "aimed at cooperation
maintain the best conditions for w
ers at the Ford plants," was concl
by Lord Perry, chairman of the 33-
old English company, and Sir W
Citrine, general secretary of the T
Union Congress.

Shoup on the Spot

Leader of "united front" in behalf of West Coast open shop may have broken own ranks by pushing labor amendment now.

The painstakingly constructed "united front" in behalf of the open shop which for a long time now has been symbolic of the southern California business attitude toward unionism looked this week as though it might be cracking. If that does indeed occur, there are going to be some California industrialists who will blame the chief architect of the "united front" for its disintegration.

Too Fast and Too Far—They have in mind of course, Paul Shoup, 70-year-old president of the Southern Pacific R.R., now president and directing genius of Los Angeles' militantly anti-union Merchants & Manufacturers Assn. Shoup's critics, in common with such organizations as the California State Chamber of Commerce and the San Francisco Employers Council, have the uneasy feeling that his timing and sense of public relations are off. Even important elements in the Associated Farmers, often considered more intransigent in labor matters than the M. & M., think Shoup has moved too fast and too far. Behind the Split—Behind the developing split in West Coast employer ranks and responsible for sharp expected changes in business association meetings is a simple proposal for a state constitutional amendment entitled "Right of Employment."

Conceived in Shoup's office, the amendment, which will be presented to California voters as a referendum in the next election if 178,000 signatures are secured, consists of four terse paragraphs. In effect it outlaws the closed shop, union shop, and maintenance of membership, and makes actionable any effort to achieve an arrangement whereby labor organization membership may be a condition of employment.

Many Employers Bolt—There is some business support for the amendment, but a long list of California employer organizations have voted either non-support or actual opposition—most of them without reference to the merit or demerit of the proposal.

Implicit in these actions, but generally acknowledged by individual employers, is the fear that a campaign of the type necessary to put such a proposition over would reap a whirlwind in a situation that has been, on the whole, pretty calm laborwise since Pearl Harbor. On the other hand, defeat of the

Contact **KAYDON** of Muskegon

*For Unusually Large,
High Precision Bearings*

BALL and ROLLER BEARINGS

Standard and Special

FROM 6" INSIDE DIAMETER TO 100" OUTSIDE DIAMETER
COMMERCIAL FINISH OR ULTRA-PRECISION

Spherical Roller Bearings
Radial Ball Bearings • Thrust Ball Bearings
Radial Roller Bearings • Thrust Roller Bearings
Taper Roller Bearings

Straight or Self-aligning • Extra Heavy Duty or Special Light Types

LIGHT WEIGHT NON-METALLIC CAGES OR STANDARD BRONZE TYPE

★ **Early Delivery** ★

PRECISION MACHINE WORK OR GRINDING

to unusual accuracy in large diameters

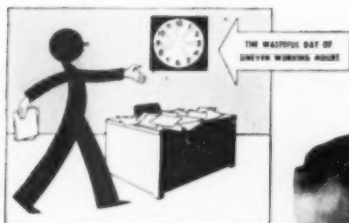
ATMOSPHERE HARDENING • FLAME HARDENING • PRECISION HEAT TREATING
METALLURGICAL LABORATORY • MICROSCOPY AND PHYSICAL TESTING

★ ★ ★



For excellence in production of extremely precise, unusually large ball and roller bearings

THE KAYDON ENGINEERING CORP.
McCRACKEN STREET • MUSKEGON, MICH.
New in Name . . . Old in Experience



TELE
WEBSTER ELECTRIC™
Teletalk
REG. U.S. PAT. OFFICE

PAYS FOR ITSELF By Freeing Your Day of Wasted Hours

Graybar Specialists located in 86 key cities throughout the country are ready to show you how Teletalk will pay for itself by speeding up action every hour of your day, by eliminating delays, confusion and misunderstandings.

Let our Specialists appraise your requirements, make recommendations to fit your needs, and supervise the installation of a Teletalk Intercommunication System in your office or factory.

Teletalk is available to fit every size and type of business, in capacities from 5 to 24 stations, with or without busy signals, annunciators and other features.

Investigate Teletalk. Make every hour in these busy days count. For complete information, phone your nearest Graybar house today.

Graybar Electric Company, Inc.
Graybar Building, New York City

Offices in Over 80
Principal Cities



amendment might very well, it is felt, weaken the open-shop position which is still very popular throughout the state.

• **Test of Strength**—Aside from the basic issue, considerable business interest attaches to the fact that the present dispute over labor relations strategy is not a lineup of northern against southern California industrial philosophy.

Indications are that a test of Shoup's strength in his own bailiwick is shaping up, that the differences of opinion in southern California itself are so violent that the coming fight will have all the characteristics of a family brawl.

Rubber Talks Idle

Union negotiations with three of the big four mark time while NWLB mulls over proposal for industry-wide bargaining.

Wage negotiations in many of the 175 locals of the C.I.O. United Rubber Workers are in slow motion pending a decision of the National War Labor Board on whether to conduct the rest of the bargaining on an industry-wide basis.

• **Alternative Demands**—Historically never a unit such as the steel industry, the rubber companies are inclined to view the union request for over-all consideration merely as the U.R.W.'s contribution to the efforts to crack the Little Steel formula.

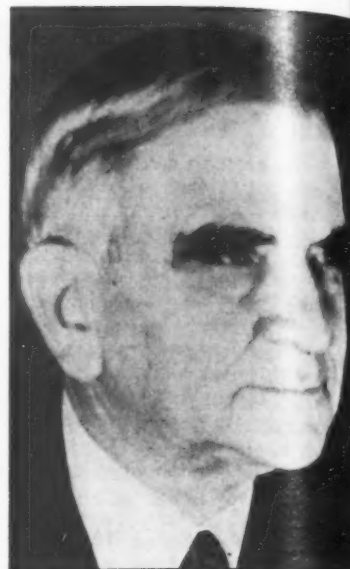
The executive board of the union adopted a policy program in February asking a general increase of 22¢ an hour, with a 10¢ additional bonus for night shift workers. Should the night shift differential be refused, the program calls for a general increase of 17¢.

• **The Union's Compromise**—Leland S. Buckmaster, international vice-president of the union, said this was "to stabilize wage rates with actual increases in the cost of living," asserted that it was a compromise between the 23.1% rise as figured by the Bureau of Labor Statistics, and the 43.5% calculated by the A.F.L. and C.I.O. (BW—Feb. 5 '44, p94).

These demands are in the conciliation stage with three of the big four Akron companies—U. S. Rubber, B. F. Goodrich, and Firestone. The Goodyear contract does not expire until July.

• **Above the Formula**—NWLB last summer granted general increases of 3¢ an hour as a blanket settlement of many individual cases. This brought workers in some locals above the 15% Little Steel limit.

The union complained, however, that its arguments had not been presented



With divergent views on unionism splitting ranks of West Coast employers, 70-year-old Paul Shoup, open-shop opponent and president of the Los Angeles Merchants & Manufacturers Assn., faces a test of strength.

on an industry-wide basis, and accepted the finding reluctantly. Buckmaster contends that 45,000 workers in the Akron area required an 8¢ raise to reach the Little Steel top. The question was whether a 7¢ increase granted July 1, 1941, was applicable, for the Little Steel formula, adopting Jan. 1, 1941, as a base date, did not emerge until mid-1942.

The rubber wage scales are complicated by seniority rules and incentive bonuses, but the average wage of male and female workers in the Akron area is \$1.22.

Police Organize

Chicago is surprised when union announces its formation with 820 members. City to test legality of new A.F.L. group.

Chicago citizens and police officials alike were caught off guard last week by the news that the Chicago and Cook County Law Enforcement Officers Union, Local 785, was organized March 20 and claimed 820 members among the city's 5,900 policemen.

• **Bid for Members**—While Police Commissioner James P. Allman publicly protested that "they can't do this," Local 785 announced that for 60 days no



Can You Afford a 24-Hour Week?

Absurd, you say? Of course you work 48 hours a week—or more! But what about the time it takes to jump up and hunt for Jones? The minutes you waste waiting for a messenger to bring those figures you need NOW? The time you lose while your secretary runs down information on orders? All the countless, costly, confusing delays that waste time?

Add up this time you lose—multiply it by the time wasted in the same way by every key man in your office—then throw away these tell-tale figures that show a 24-hour week and install Teletalk Amplified Intercommunication.

All the "do it now" signs on your office desk won't help you to "get it done now." Tele-

talk will. It's so easy to flip a convenient key and ask for what you want—ask for it in your own voice—and get quick, intelligent answers from your key men, in their own voices. Nobody is disturbed. Mistakes and misunderstandings are fewer. There is no confusion, no undignified chasing hither and yon—just ACTION NOW.

Why don't you have Teletalk? The chances are you have just been so busy in this wartime confusion that you haven't had time. You'll find the time it takes to call your local Teletalk man and learn about Teletalk will give you the time to do a thousand and one things easier and better. You will find him listed in your classified telephone directory, or write us and we'll see that he contacts you.

WEBSTER ELECTRIC COMPANY, Racine, Wisconsin,
U. S. A. Established 1909. Export Dept.: 13 E. 40th Street,
New York (16), N.Y. Cable Address: "ARLAB", New York City



Let's All Back the Attack—
Buy Extra War Bonds

★

Licensed under U. S. Patents of Western Electric Company,
Incorporated, and American Telephone and Telegraph Company



WEBSTER ELECTRIC
Electronic inter-
communication, pag-
ing and sound dis-
tribution systems for
offices, stores, factories, buildings,
institutions, homes and farms.

"WHERE TO BUY IT"
GRAYBAR ELECTRIC CO., INC.
21st & Deane Norfolk 22727
NORFOLK

WEBSTER ELECTRIC



Where Quality is a Responsibility and Fair Dealing an Obligation

initiation dues would be required of new members.

The local is affiliated with the American Federation of State, County & Municipal Employees and with the American Federation of Labor.

Chicago's municipal attorneys ambiguously ruled this week that the union is legal, but that city officials have the authority to prohibit policemen's membership. The city is expected to issue an order outlawing membership.

• **Firemen Are Organized**—Civil and police authorities, nervously aware of the implications of a policemen's union, harked back to the famous Boston policemen's strike of 1919, when Calvin Coolidge, then Governor of Massachusetts, issued his famous dictum that "there is no right to strike against the public safety by anybody, anywhere, any time." But officials of Local 785 were quick to point out that policemen in many other cities are unionized and that other Chicago municipal employees—including firemen—are unionized.

One precedent in Chicago—and that a dubious one—was a 1903 ruling by the General Superintendent of Police that no society or organization of policemen would be permitted, and that membership in the Policemen's Protective Assn., then in the throes of organization, would be considered disobedience. This ruling was later sustained in court.

• **Not Convinced**—Municipal officials didn't seem reassured by statements issued by the union president, Lt. Charles A. Anderson, member of the force since 1926, member of the Illinois bar since last September, and winner of twelve creditable mentions, that:

(1) Strikes are prohibited by the union's bylaws.

(2) The union would not ask for more pay "until members have educated the public to know they are worth more."

U. S. Mail Order

Government takes over Montgomery Ward in showdown on NWLB authority, but Commerce Dept.'s "title" is challenged.

With an opera bouffe action, the government of the United States won what it hopes is the final battle in its war with Montgomery Ward & Co. Its victory this week leaves it in technical possession of the mail-order firm's properties, but the company's challenge of the legality of the government's seizure, supported by Ward's record of resistance on the whole issue, seems to assure a long aftermath in the courts.

Already—before the judges have their day—a fistful of precedents have been established in the two-year-old fight that has involved the company with probably more agencies and offices of the federal government than have ever before been drawn into a single labor dispute. Directly concerned in what started out to be a routine C.I.O. attempt to organize just another large employer were the National Labor Relations Board, the Dept. of Labor, the National War Labor Board, the Dept. of Commerce, the Office of War Mobilization, the War Dept., the Dept. of Justice, the federal courts, and the White House.

• **NWLB Poses the Issue**—The interests of all these agencies were brought to focus by Montgomery Ward's refusal to grant C.I.O., acting as bargaining agent for the Chicago warehouse and retail store employees, standard contractual terms embodied in an NWLB directive.

In the first stages of the fight—during 1942 and early 1943—the company's

refusal rested on the assertion that NWLB's award of maintenance membership to the union was illegal. Its current stand is based on two claims: (1) that the union with which it is asked to deal does not have a major following and (2) that the government authority in labor matters does not extend to nonwar plants.

• **Three Firsts**—Three important precedents were developed in the course of the marathon argument:

(1) NWLB's assertion of unlimited jurisdiction over labor disputes of all types and in all industries—the first time Montgomery Ward appeared on the docket.

(2) NWLB's action in going before a National Labor Relations Board for ratification and calling on a union to provide additional proof of its major status in response to an employer challenge—the second Ward case in 1944.

(3) Extension of the seizure power of the President of the United States to a nonwar industry involved in a labor dispute.

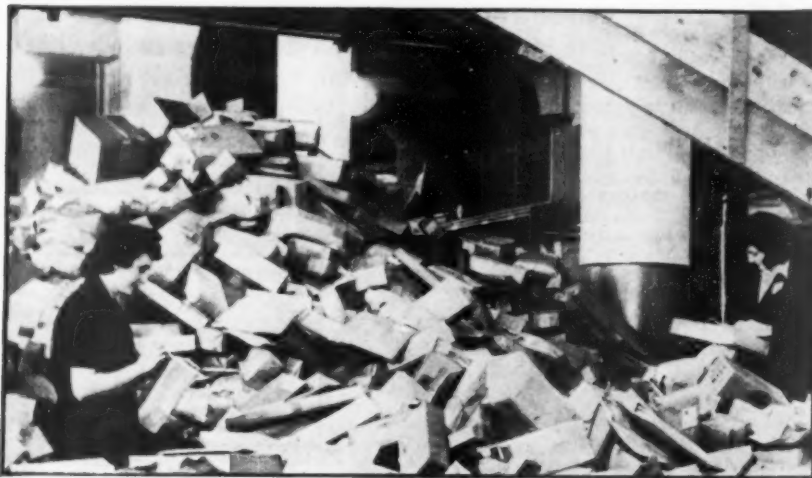
• **The Showdown Comes**—The momentous legal issues which grew out of the fight—most of which boil down to the question of whether the government had a legal right to do what it did in order to get compliance with NWLB awards—were dimmed by the battle that set the tone for the showdown this week.

After a ten-day strike for which it claimed government sanction, the C.I.O. put its members back to work in Ward's plant on receiving a wire from Roosevelt to end the walkout. In an identical message to the company, the President called for compliance with NWLB directives to keep in effect the union contract which had expired last December pending disposition by NLRB of its representation question.

Both parties were given a Tuesday noon deadline. The deadline came and went with no word from Ward. At 3 p.m., a wire from the company reached the White House in which Ward challenged the authority of the President to take over its establishment, ignoring his request to comply.

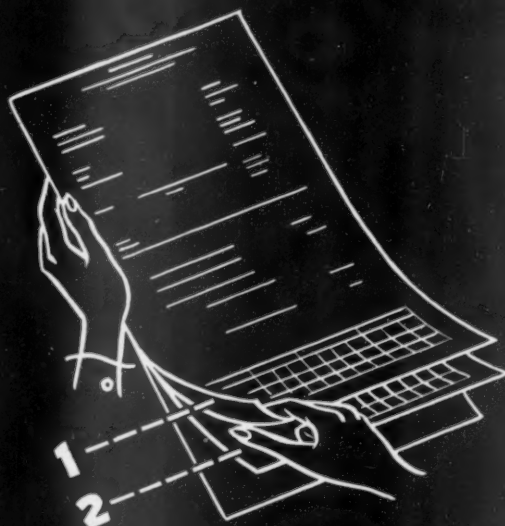
• **U. S. in Business**—The next day Undersecretary of Commerce W. C. Taylor appeared at the company's Chicago office with an order to take over Ward operations. Ward's board chairman, Sewell Avery, said he did not recognize the legality of the order, spurning what was a virtual invitation from Jones to stay where he was as government administrator.

Nonplussed, Taylor phoned Washington for instructions. His answer was a White House announcement that the Secretary of War had been instructed to "take any action that may



At Montgomery Ward's big Chicago warehouse, two girls attempt to stem the flood of unsorted mail during the company's all-out battle on the labor front.

Timesaver on Shipments to the Navy



From one writing... two master stencils

New Mimeograph Double Stencils solve problem of

"NAVY REPORTS OF MATERIAL SHIPPED"

If you are a prime or sub contractor making direct shipments to the Navy here's a new use of Mimeograph duplication of real importance to you.

It's a solution to one of your major paper work problems—the Navy Reports of Material Shipped.

This really unique solution, developed by Mimeograph headquarters after a thoroughgoing study, is made possible by a new Mimeograph product—Mimeograph double stencil sheets. From a *single* writing, *two*

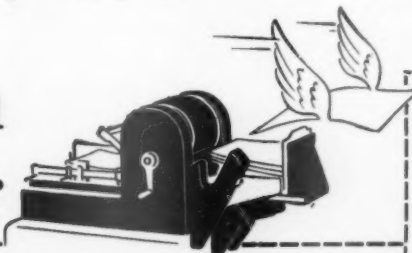
master stencils are prepared. The *first* is used to produce all work copies, and to make actual shipment. The *second* is saved to report and bill the shipment after it has been made.

Chance of errors is eliminated, an enormous amount of time is saved, and the clean-cut, black-on-white copy stays permanently legible in spite of the roughest handling.

If you're interested in a sound and simple short-cut method of producing your Navy Reports of Material Shipped don't miss getting full details on this new Mimeograph duplicating method using double stencils. The coupon below is for your convenience. We'll send you complete details promptly.

A. B. DICK COMPANY, Chicago.

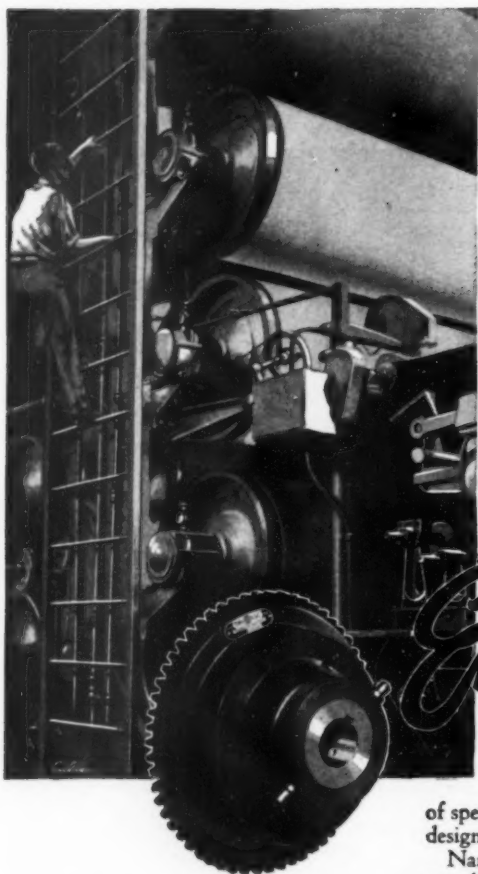
Mimeograph duplicator



A. B. Dick Company, Dept. R-444
720 W. Jackson Blvd., Chicago 6
Send me full details on the new Mimeograph method
of producing Navy Reports of Material Shipped.

NAME.....
COMPANY.....
ADDRESS.....

MIMEOGRAPH is the trade-mark of A. B. Dick Company, Chicago, registered in the U. S. Patent Office.



Enemy OF IGNORANCE

Try to imagine—if you can—where we would be today if paper were still a luxury. Low-cost books, magazines and newspapers, the tools of education, got their start when mass production methods and machines went to work on paper. The ensuing widespread distribution of knowledge, information and ideas, printed on paper, has enriched our lives immeasurably. Through the use of paper and printing man has been forever freed from the curse of ignorance.

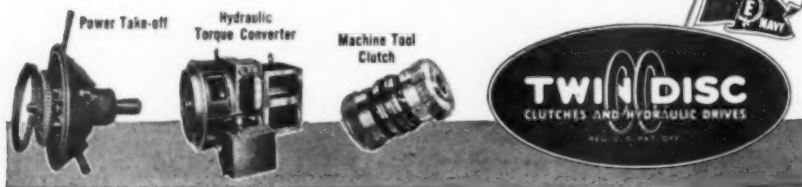
Perhaps it's because skill and experience count for so much in paper making that you find Twin Disc clutches on so many paper-making machines. It's certain that such recognition accurately evaluates another of the contributions to progress made by the Twin Disc Clutch Company's quarter-century

of specialization in industrial clutch design and manufacture.

Name almost any industry and you designate a field in which driving and driven units of essential machinery are linked by a Twin Disc product. Massive, rugged friction clutches on rock crushers—smooth acting hydraulic torque converters driving rail cars—compact, easily operated machine tool clutches—all these and other Twin Disc power links have in common the inbuilt stamina, endurance and dependability that result from adherence to the highest engineering and manufacturing standards.

Why not learn all about what Twin Disc Clutches or Hydraulic Drives can do for equipment you build or buy? Simply for the asking, you may have all the help our engineers can give. Write today to either of our factories. TWIN DISC CLUTCH COMPANY, Racine, Wisconsin (Hydraulic Division, Rockford, Illinois).

This heavy duty Twin Disc clutch permits smooth starting and positive control of paper-making machines. Similar Twin Disc units find wide application in large industrial equipment of varied types.



SUITS FOR SALE

The War Food Administration has 8,000 neat—if not natty—uniforms for sale because it overestimated the style ideas of women. Purchased for resale to the Women's Land Army last year, the zipperless coveralls proved a flop when only 2,000 of the 250,000 enrollees paid \$8.70 each for them. Farmerettes prefer shorts or overalls.

be necessary" to complete the seizure. By presidential order the Commerce Dept. backed by the Army was set up in the mail-order business.

GUARDS CHANGING JOBS

Reduced security requirements in arms plants, particularly those making routine military goods, have brought about a quiet program among the services to channel plant protection men into direct production jobs.

Reduction of requirements for protection personnel has been accompanied by permission from the services to war contractors to withdraw their guards from the civilian auxiliary of the Military Police, a mandatory regulation since soon after the war began.

The changeover from semimilitary to civilian status is being made slowly. Some plants believe the retention of their guards in the military auxiliary helps morale and so have made no change. Others, particularly smaller ones, feel that the relieving of their men from required drill and instruction clinics outweighs the morale factor. Pay rates and responsibilities are unchanged in any case.

of M. Spiked

Humble Oil decision draws "unlawful" charge from industry members of NWLB, but Davis swades them to reconsider.

Old row has flared again in the National War Labor Board. Industry members are at odds over maintenance of membership, that form of union security which obliges workers to remain members of a union to maintain their membership in good standing during the life of their working con-

Personnel Changing—Labor members dispute the flareup to advance preparation of the National Assn. of Manufacturers and the U. S. Chamber of Commerce for a postwar open-shop drive. Experienced observers are inclined to attribute it to the change in personnel on the industry side of board; the new members are fighting a battle that has already been decided.

Sharp words in an industry opinion, issued by James H. Tanham, an alter-ego employer member, dissenting from the board order of its standard maintenance-of-membership formula for the Humble Oil Co., Ingleside, Tex., drew objections from Chairman William H. Davis, who had become used to recording dissent (for the record only) on the industry side on this issue.

Position "Unlawful"—Davis objected to the comment that industry members occupied the majority position of the board as "unlawful," and to an implication in the opinion that the public labor members had systematically delayed a court test on the issue.

At great length, Davis and other public members explained that the board has striven unanimously to avoid court tests on all its decisions because of review by the courts while the war in progress would tie the agency into delays. Davis commented that he did not think any industry member who believed maintenance of membership to be unlawful should remain on the board because he might be called upon to help make such a decision if it were challenged by the employer involved.

The industry members agreed to reconsider the language of the dissenting opinion.

AGE DISPUTE AIRED

A machinists' dispute over wages that has been tying up West Coast shipyards and on for some months was aired last week before three hearings of the National War Labor Board's Shipbuild-

MOTOR Reliability

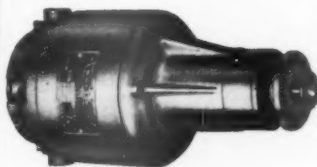
DEPENDS ON THOROUGH ENGINEERING



★ With motor reliability in all types of equipment receiving more emphasis than ever before, greater importance is being attached to *thorough engineering*.

Designing the motor for a particular task is imperative if today's rigid requirements are to be fulfilled. Realizing this, many manufacturers turn to us because of our many years' experience in the field of special application motors.

Valuable experience resulting from our complete participation in the war effort will aid in solving motor design problems of the future.



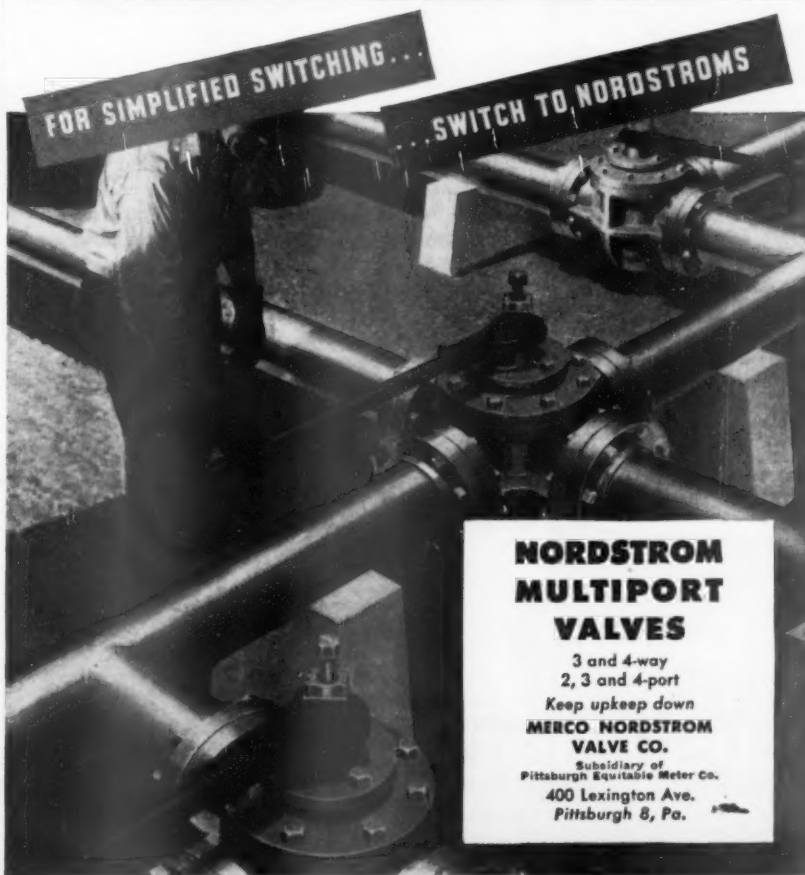
THE BLACK & DECKER ELECTRIC CO.
KENT, OHIO

Black & Decker

FRACTIONAL HORSEPOWER SPECIAL APPLICATION MOTORS

FOR SIMPLIFIED SWITCHING...

...SWITCH TO NORDSTROMS



NORDSTROM MULTI-PORT VALVES

3 and 4-way
2, 3 and 4-port

Keep upkeep down

MERCO NORDSTROM
VALVE CO.

Subsidiary of
Pittsburgh Equitable Meter Co.
400 Lexington Ave.
Pittsburgh 8, Pa.



J. A. Gary
Editor, Furniture Age

...."the most amazing furniture
the world has ever seen"....

Made of PLUSWOOD A Wood Alloy

ACID

Here a ten per cent solution of sulphuric acid is poured without effect on this chest of Pluswood.



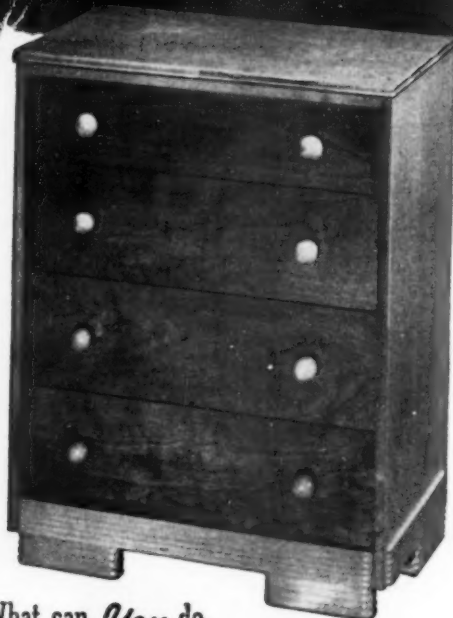
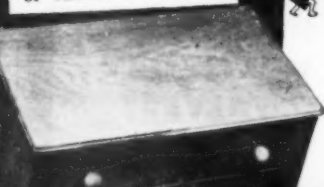
FLAME

A pool of alcohol burns harmlessly on the beautiful, durable surface of this Pluswood chest.



FINISH

The natural, high gloss finish of Pluswood is permanent. Polish, wax or varnish are needless.



What can *You* do,
postwar, with this new miracle material?

Here is a child's chest with a finish impervious to sulphuric acid, with a surface so hard that it can be scratched only by extraordinary means, and made of a material so fire-resistant that alcohol can be burned on it without effect. Yet this miracle material Pluswood, lighter than aluminum, strong as many metals, is as much at home in a machine shop as it is in a nursery. A non-conductor, this wood alloy offers amazing qualities of density and toughness. Like metal, it can be made to any predetermined engineering description, and like metal, it will retain its dimensional stability so completely that only micrometer measurements can indicate change. Write today for an informative data bulletin.



The greatest trade name in juvenile is behind this practical postwar furniture, so beautiful to look at and so easy to live with. Fine furniture for children has been a Lullabye tradition since 1897.



PLUSWOOD Incorporated, Oshkosh, Wis.

Associated
Companies

LULLABYE FURNITURE CORPORATION, Stevens Point, Wisconsin
NORTHERN HARDWOOD VENEERS, INC., Butternut, Wisconsin
ALGOMA FOREST PRODUCTS, LTD., Bruce, Ontario, Canada

ing Commission, in Seattle, San Francisco, and Los Angeles.

The controversy turns on whether drydock work on new ships which made their trial run is new construction or repair work. If it is new work, a chinist gets \$1.20 an hour, but if classified as repair, he receives \$1.34 an hour. Employers claim it is still work, as it consists of adjustments necessary in the trial run; the machinists say it is repairs, as the ship already has left the ways.

City Is Accused

Los Angeles is informed that its wage increase to power strikers exceeded limits imposed by Little Steel formula.

Repercussions from last February municipal power strike in Los Angeles (BW-Mar. 4 '44, p. 21), which was blamed in some quarters on political crosscurrents, continue to plague city officials. **• Stabilization Breach**—Last week James B. Agnew, Los Angeles Water & Power Commission president, announced a "discovery" that city authorities had violated the wage stabilization act and might even face penitentiary terms unless they rescind the \$10-a-month increase which the 5,000 power workers who went out on strike finally won.

Agnew cited a report recently completed by a five-man investigating committee, which found that the utility workers' wages had been increased 24 to 29% since Jan. 1, 1941, as against the Little Steel formula limit of 15%. **• Threat Dissipated**—But the horrendous threat which Agnew uncovered was dissipated by an opinion by the city attorney, in spite of Washington declarations to the contrary, that the federal wage stabilization act does not apply to government and city employees. Agnew has announced that he will try to get other commission members to join with him in instructing the city attorney to get a court test of municipal liability. Other commission members have refused to go along with Agnew in withdrawing the utility workers' wage increase, knowing it would upset again the present tenuous balance of labor relations.

• Preparing for Test—The Army took over the city's electric system and handed it back to Mayor Fletcher Bowron six days after seizure with the wage issue still unsettled. Union attorneys are preparing evidence that could be used in a court test of the applicability of the Little Steel formula to city workers.

THE WAR AND BUSINESS ABROAD

BUSINESS WEEK

29, 1944



As May 10—fourth anniversary of the Nazi invasion of Holland and Belgium—approaches, Axis-Europe is becoming increasingly jittery.

The stepped-up bombings by British-based planes are ominously concentrating on Axis communications centers—in addition to the continued pounding of arms production cities (map, page 16).

There is a foreboding lull along Russia's northern front, particularly since Nazi reconnaissance planes report fresh supplies of men and equipment massing on the Soviet side of the lines—presumably for an attack which will be synchronized with the Allies' cross-Channel onslaught.

In the Mediterranean, German observers, scanning the sudden rush of traffic passing Gibraltar, have warned Berlin that France is likely to be blasted from the south as well as the west on D-day.

Pressure on the neutrals will be intensified.

Sweden will learn that neither Britain nor the U. S. is likely to overlook Stockholm's reluctance to assist in the final storming of Fortress Europe, at least by imposing a complete embargo on key war materials still being delivered to Hitler.

Turkey—finally forced into stopping the flow of chrome to Germany—is scheduled to make further important concessions to the Allies including, before very long, opening the Dardanelles to ships carrying supplies to Russia.

Finland has apparently lost its last opportunity to get out of the war. Helsinki can now expect Moscow to dictate a much stiffer final settlement, with little or no opposition from either London or Washington.

Switzerland is not included in the general Allied campaign to have the neutrals cooperate in the liberation of Europe because both London and Washington fear it might force the Nazis to occupy the country.

Look for a violent disruption in ocean transportation programs in connection with the invasion.

British imports of civilian supplies—especially food—will come to a complete halt for several weeks. London has prepared in advance for this by building 8,000 food caches at various points throughout the island.

The Red Cross has even stored up a backlog of prisoners-of-war packages in Switzerland so that the P.W.'s in Germany won't go hungry when the invasion comes.

Canadians believe that the June 1 cut in commercial sugar rationing, soon to be announced, is caused by the temporary tightening of shipping bound to come at the time of the invasion.

Coffee drinkers in the U. S. are warned that few ships will be assigned to the Latin-American coffee runs during the next few months. Dealers believe there's enough in U. S. warehouses to tide us over.

No letup in military activity should be expected in the Far East when the European invasion begins.

It is clear now that no major drive to retrieve Burma from the Japanese will get under way before fall because the monsoon season—with up to 120 in. of rainfall—will hit the Bay of Bengal within the next few weeks.

It is no longer a secret that Admiral Lord Louis Mountbatten failed several months ago to win backing for his Burma project (for which landing

THE WAR AND BUSINESS ABROAD (Continued)

BUSINESS WEEK

APRIL 29, 1944

craft and other supplies had already begun to arrive) from old-time campaigners in India.

Indian Ocean headquarters has since been moved to Ceylon, where Mountbatten is comparatively free from the political and military restraints peculiar to New Delhi.

These complications, and the consequent loss of time, have probably resulted in a complete reshuffling of Pacific battle plans.

Don't be surprised if Burma ultimately is bypassed. New strategy is likely to prescribe a direct naval thrust straight to the China coast, by way of the Philippines. It's likely to be both cheaper and quicker.

Surprisingly, speed has suddenly become a matter of great concern in Washington where top-flight officials have recently become alarmed lest what they term "the volatile American public" gets tired of the war before the job of defeating the Axis in the Pacific is finished.

Holding the limelight for the moment, though bound to be obscured the minute the European invasion gets under way, is a series of international conferences, all intended to outline postwar economic patterns.

No settlement of the rankling international oil problems is to be expected from the Anglo-American discussions now under way in Washington. Britain, confident that it can get a better deal after the war in Europe is won, is stalling for time by sending as its official representatives a small group of men qualified to talk only about technical problems.

Policy problems can be solved only by negotiators of cabinet rank. **London is trying to forestall any such conference** on the plea that the invasion is too imminent to allow time for such matters.

Agreement on the basic agenda for an international monetary conference (that's all there is to this week's announcement by the Treasury—page 16—) **highlights the need for some fundamental agreement on international trade plans before monetary issues can be solved.**

Churchill revealed London's bargaining stand on tariff questions (and gave Secretary Cordell Hull and the State Dept. a terrific jolt) when he declared last week that the old Empire tariff preferences could still be made to work without voiding any United Nations agreements already made.

Hull has full Canadian backing for his much broader reciprocal trade program, but Australia is vigorously protectionist, and South Africa can be tempted into an Empire bloc without much effort.

It will be several years after the war before Germany is allowed to operate airlines, no matter what kind of a peace is meted out to the Reich.

That's among the few things so far predictable about the international air muddle. **Best thought in Washington is that a broad agreement on principles should be reached as soon as possible—replacing the hampering bilateral pacts that were characteristic before the war.**

Canada's detailed proposal for postwar development of international airlines (BW—Mar.25'44,p116) is widely hailed as the most farsighted to date. **Nothing as comprehensive has yet been developed on merchant shipping (BW—Feb.12'44,p15), which may prove the tougher nut to crack.**

Inside Yugoslavia

Occupation forces cling to vital ores, but guerrillas hit mercury-producing centers and Ljubija iron mines.

The fruits of conquest are bitter in the woods and valleys of Yugoslavia. With the Red Army less than 300 miles away at the Czechoslovakian border and less than 400 miles away in Albania—and with burgeoning support from the Allies and Russia by air and sea—the Yugoslavian Partisans are determined to torment the German rear support of the Anglo-American western invasion and the renewed Soviet onslaught in the east.

Price of Occupation—For three years German, Italian, and satellite armies have fought Yugoslav guerrilla forces without successfully eliminating resistance. The price of occupation in increased trains, sabotaged truck convoys, and battle casualties may well outweigh the dividends of food and raw materials obtained from the area.

At all times, the number of troops required to police Yugoslavia has been high. In February, Prime Minister Winston Churchill estimated that 20 German divisions patrolled the Balkans while only 18 divisions faced Allied armies in Italy.

Hold Half of Country—Today Yugoslav forces are receiving steady and mounting aid from Britain, the United States, and the Soviet Union. The guerrillas now hold nearly 50% of the country (map), with some 4,000,000 to 6,000,000 inhabitants.

For three years the situation within Yugoslavia has been obscured by disarray and confused by contradictory claims of the chief resisting groups—Marshal Tito (Josip Broz) and Draza Mihailovich, war minister of the exile government of Yugoslavia. Left-wing Tito forces have frequently clashed with the government forces under Mihailovich.

British Back Tito—Nearly a year ago, in an attempt to clear the air, British American military intelligence officers were parachuted into the camps of Marshal Tito and Gen. Mihailovich. The result was Churchill's statement that "the Partisans of Marshal Tito are the only people who are doing effective fighting against the Germans now." He estimated Tito's forces at a quarter of a million.

The guerrilla front is chiefly concerned with (1) disruption of Axis communications; (2) seizure of goods in transit and of sources of supply; (3) engagement of the maximum number of Axis troops in defensive operations; (4) extension of German-free area, particularly along the Adriatic coast to permit increased movement of supplies from Italy to the Partisan area.

• **Arms Smuggled In**—When the Italian armistice was signed, nine Italian divisions in Yugoslavia surrendered to the Partisans—some joined the guerrilla ranks. With the successful Allied capture of southern Italy, liaison with the guerrillas was facilitated, military advisers shuttled back and forth, and the first shipments of munitions were smuggled across the Adriatic from Italy.

Of late, in addition to supplying arms and advice, the Allies have coordinated strategic bombings with Marshal Tito's land operations—helping, for instance, to save Tito's operations base at Jajce earlier this month.

• **Resources**—The Germans are holding tenaciously to the chief strategic areas of Yugoslavia. The country's mineral and agricultural wealth is substantial. Before the war it was an exporter of meat (57,000 tons), dairy produce (15,000 tons), grains (506,000 tons), oil-

seeds (27,000 tons), hemp (29,000 tons), wood (1,700,000 cubic meters).

But exports of minerals were even more important before the war and coincided closely with output (in tons—metal content, except bauxite): bauxite (crude ore), 440,000; iron, 331,000; copper, 47,400; lead, 75,800; zinc, 53,000; chrome, 50,000; manganese, 4,200; and antimony, 6,400.

• **What Germans Hold**—Of these metals, all but bauxite, iron, and zinc are safely held by the German occupation forces in southeast Yugoslavia. The rich bauxite mines on the Adriatic northwest of Spalato (map) produced 11% of the world's supply in 1936. Ore from this area now, however, must run a guerrilla gauntlet if sent by rail or risk interception on the Adriatic by Allied raiders now operating in force from island bases held by Marshal Tito.

If the Partisans seize the Ljuboten chromite mines northwest of Skopje, Germany's currently available supply would be more than halved—Turkey's cutoff of chrome exports last week reduced the supply by 33%.

• **Partisans Hold Mines**—For months the Partisans have held the Ljubija iron mines, south of Zagreb, and have withstood a half-dozen German attacks. Raiding parties based in the area west



In the heart of the Balkans no German soldier or convoy is safe from the lightning thrusts of guerrillas—the muffled shots, the broken rail, the roadblock, and sticky grenades.

In Yugoslavia the armies of Marshal Tito range over half the nation, and in Greece and Albania smaller bands harass German efforts to move strategic minerals to the Reich.

of Zagreb have frequently hit the mercury-producing centers of Italian Istria, near Trieste. As much as 350 miles of the Zagreb-Belgrade railroad have been closed as a result of coordinated raids by the Partisans. Tito holds nine important Adriatic islands.

• **Resistance Elsewhere**—Greece and Albania are also rife with resistance, and in each the internal dissensions between guerrilla forces parallel the Yugoslavian situation.

In all three countries the most active groups are unofficial, even opposed by exile governments. Their existence has made the position of the emigre governments unstable—despite frequent juggling of cabinets—and portend fundamental changes in postwar Balkan government.

Labor Recruited

B. & O. and two canning concerns hire 3,000 workers in Puerto Rico despite task of keeping them on the job.

SAN JUAN, P. R.—Despite the special problem of keeping Puerto Ricans on the job once they are admitted to the United States (BW—Apr. 22 '44, p10), at least three big U. S. industries are finding a partial solution to their present manpower difficulties by recruiting their workers from among Puerto Rico's skilled labor supply, and others may follow suit.

• **Rail Workers Recruited**—Working in cooperation with the Puerto Rican office of the U. S. War Manpower Commission, headed by Winston Riley, Jr., the Baltimore & Ohio R.R. was first in the field this month in search of 2,000 track workers to be sent to northeastern states.

• **Qualifications**—In the case of the B. & O., approved workers must have \$10 in cash, hold health certificates, and be at least 18 years old. Workers will get 66¢ an hour, time and a half for overtime, and be charged \$1.30 for food daily. Housing will be furnished free. Contracts run for six months.

Fifty dollars will be deducted from the pay to cover the cost of transportation to the U. S., return costs to be paid by the employer if the contract is fulfilled. Of the gross earnings, 25% must be sent to dependents in Puerto Rico. Only "strawbosses" need to speak English. Union membership is neither required nor prohibited.

• **Canners Hire 1,000**—Also in the field were Campbell Soup Co., and the Edgar F. Hurff Co. (New Jersey canning concern), which required men between 27 and 45 who had health certificates.

Campbell will take 500 men in mid-summer, with pay starting at 66¢ an hour, 10% additional for night work, and time and a half for overtime. Free housing and uniforms will be furnished, and union membership is optional. The Campbell contract is for three months.

Hurff needs 500 men immediately, and is offering starting wages of 50¢ an hour, time and a half for overtime, and double pay for Sundays. All must sign A.F.L. contracts. Seven dollars weekly is furnished for meals, with housing free. The Hurff contract runs for six months. The canning companies are using the same terms as the B. & O. on transportation and on the deduction for dependents.

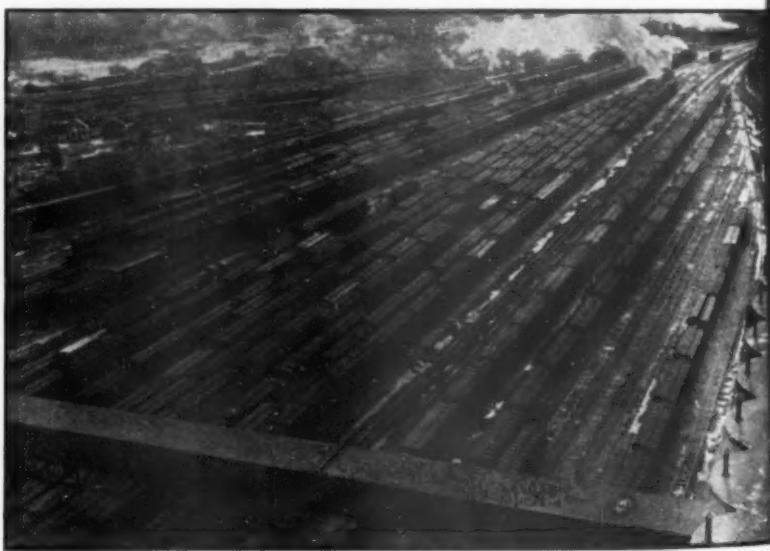
• **More Coming Later**—WMC may be delegated to hire additional workers later, drawing them from those approved by interviewers who visited about ten towns in the island.

RUSSIAN REHABILITATION

Long before the Red Army reached the rich coal mines of the Donbas, before even the Caucasus had been cleared of invaders, rehabilitation plans for liberated areas had been drawn in Moscow.

In the logging camps of Siberia and the Urals, timber was cut for mine props; sawmills stacked the boards for emergency shaftwalls; factories began to rack prefabricated houses for miners.

Late last year, the Commissariat of the Lumber Industry announced that one of every four freight trains chugging south and west into the Donbas was loaded with construction materials. Close to 1,000,000,000 b.ft. were shipped in 1943 for essential rehabilitation of industries and mines.



Endless lines of freight cars laden with machines, food, and munitions awaiting shipment from an eastern port provide some idea of Canada's war effort.

CANADA

\$165 a Second

That's the rate of Canadian war expenditure. Dominion ranks sixth in munitions output ships 75% of it to the Allies.

Canada is spending \$100,000,000 a week on the war—\$165 a second, \$5,200,000,000 during the present fiscal year. This is a per capita outlay of \$452 a year (the U.S. rate is \$681).

Of this expenditure, about 60% goes for upkeep of the army, navy, and air force, the remainder for direct war production.

• **For the Allies**—Holding sixth rank in world munitions output (behind the United States, the United Kingdom, Russia, Germany, and Japan), Canada like the U.S.—produces more than its own needs; 75% of Canadian munitions is for other Allies, 10% for the United States. On the other hand, Canadian war specialization has made it dependent on other Allies for some munitions.

Canada is the only Allied power not receiving U.S. lend-lease aid. To date Canada's gifts to Britain, and repayments to China, the Soviet Union, and other of the United Nations are close to \$3,000,000,000. All Canadian purchases in the U.S. have been on a cash basis.

• **Facilities Pooled**—When Canada was swept into the war in September, 1939,

Which Ozalid machine has been designed for your drafting room?



A Model B . . . Like Grumman's
Grumman Aircraft Engineering Corp.
Bethpage, Long Island, New York



A Model F . . . Like Blaw-Knox's
Blaw-Knox Corporation
Pittsburgh, Pennsylvania



A Type 2600 . . . Like Standard Oil's
Standard Oil Co. of New Jersey
Elizabeth, New Jersey

1. For large-scale print production.
An Ozalid Model B will turn out whiteprints of your engineering drawings at speeds up to 20 feet per minute. Printing and Dry Developing are in one continuous operation . . . there are many exclusive features. You can be relied upon for dependable economical round-the-clock performance. Price \$2,850.00 F.O.B. Johnson City, New York.

2. For medium production. The Model F is ideal when demands are moderate or occasional. It may also be used to supplement other equipment, or provide on-the-spot printmaking in departmentalized organizations.

The printer and developer are combined in one compact unit and whiteprints can be turned out at speeds up to 4 feet per minute. Price \$825.00 F.O.B. Johnson City, New York.

3. For use with your present printer.
If you have already installed expensive blueprinting equipment . . . you can add a Type 2600 Dry Developing unit and receive all the benefits of Ozalid Printmaking.

Expose Ozalid sensitized materials in your printer—then transfer to the Type 2600. Rate of development is approximately 5 feet per minute. Price \$370.00 F.O.B. Johnson City, New York.

YOU CAN'T HAVE THIS VERSATILITY—WITHOUT AN OZALID MACHINE

Dry Development distinguishes it from all other printmaking processes. It eliminates baths, driers, plumbing connections—responsible for compact machine size. Its most important, it allows you to

use a full line of sensitized materials and obtain exclusive printmaking "extras".

WITH OZALID YOU CAN:

- Make prints having blue, black, maroon lines on white backgrounds.
- Produce duplicate "originals"; reclaim

soiled or worn tracings; eliminate drafting waste when making corrections.

Use cut sheets as well as roll stock—eliminate trimming waste.

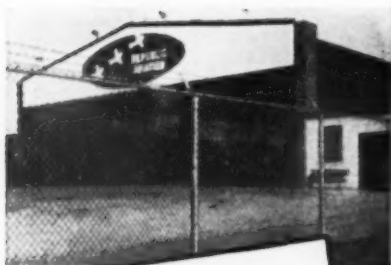
Turn out all prints in the same manner. No variations in production.

WRITE FOR CATALOG AND SAMPLES OF OZALID WHITEPRINTS.

OZALID PRODUCTS DIVISION

GENERAL ANILINE AND FILM CORPORATION

JOHNSON CITY, N. Y. ★ OZALID IN CANADA—HUGHES OWENS CO., LTD., MONTREAL



Call **ANCHOR** when
you want a **FENCE**
Erected, Moved, Repaired

No matter what your fencing problem—it pays to get the benefit of Anchor's 52 years' experience on every type of industrial fence, barrier, and enclosure: chain link, barbed wire, woven wood, board, other special constructions. Anchor's 16 branch offices provide speedy nation-wide service. Write for Free Industrial Fence Catalog and name of nearest Anchor Fence Engineer. You may be surprised to learn how Anchor's experience can save you headaches, time, money!

Anchor Post Fence Co.

6670 Eastern Avenue
BALTIMORE-24, MARYLAND



WHEN YOU THINK OF
STENCILS THINK OF
MARSH

Stencil-Marked addresses make for prompt delivery. That's why they're the required type of marking for all war shipments. Marsh-Stencil your shipments! Saves up to \$600 annually in shipping room costs! To use, simply cut a stencil, stroke with a Marsh Stencil Brush and your shipment is legibly, permanently addressed. Three sizes to meet Gov't Spec. 1", 1/4" and 1/2". Write now for booklet, prices.

MARSH STENCIL MACHINE COMPANY
58 MARSH BLDG., BELLEVILLE, ILL., U.S.A.

USE THESE MARSH PRODUCTS



MARSH

the Canadian economy was quickly meshed with that of Britain for all-out war production. When the U.S. entered the war, British, Canadian, and U.S. war facilities were virtually pooled, coordination being effected by the Combined Boards (BW-Jan.29'44,p55). Canada is an equal partner in the Combined Food and Production & Resources boards; the Canadian merchant fleet is a part of the United Nations pool under direction of the Combined Shipping Adjustment Board.

From the start, Canada's war plant has been devoted to specialty production—rather than to an uneconomic effort to manufacture all types of war supplies.

For instance, while Canada is an important producer of combat and training planes—some 12,000 to date—Britain and the U.S. supply all the engines. For a long time, Canada supplied the U.S. with anti-aircraft gun barrels. Canada's shipyards have made chiefly small naval escort and light cargo vessels while the U.S. produced heavy cargo and naval types and Britain almost exclusively naval ships.

• **Shift in Work Force**—Canada's war effort was well underway by the middle of 1941. The number of Canadians in the armed forces and war industry has risen rapidly and will continue to do so for some months to come.

The work-force breakdown for July, 1944, will show the following percentage changes since June, 1941:

Armed forces	+177
War industry	+121
Civilian industry	-4
Agriculture	-9
Unemployed	-56
Total	+19

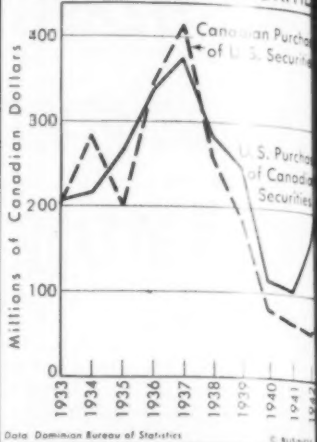
• **Following U.S. Pattern**—Through 1944, Canadian munitions production schedules will follow a course identical with those of the U.S.—rising about 10% from the final quarter of 1943 to a peak rate in the third quarter of 1944, and then declining to the end of the year.

Not included in Ottawa's munitions index, however, is more than half of Canada's war production contribution—dollarwise—consisting of industrial raw materials produced for export to the Allies.

During 1943 Canada produced the following quantities of raw materials:

	Tons	Percent Change From 1939
Aluminum	500,000	+495
Asbestos	427,000	+17
Ferro alloys	218,000	+155
Nickel	143,000	+27
Refined copper	254,000	+10
Refined lead	224,800	+18
Refined zinc	208,800	+19

U. S. BUYS MORE CANADIAN SECURITIES



Although the net flow of capital from the U. S. was at a year high last year, total transactions were far below prewar levels. Movement of Canadian capital—also falling from the 1937 peak—tumbled in the last quarter of 1939 when restrictions were imposed, and has since. U. S. investments in Canada now total \$4,375,000,000—up nearly half a billion since 1939—but Canadian investments in the U. S. (\$1,000,000,000 in 1937) have been substantially reduced by wartime liquidation.

• **Other Exports**—Canadian exports of strategic nonferrous metals, chemicals, explosives, forest products, and metallic minerals totaled \$822,000,000 in 1943:

Nonferrous metals	\$333,000,000
Chemicals, explosives, non-metallic minerals	148,000,000
Forest products	341,000,000

In addition, Canadian exports of food products—wheat, flour, canned bacon, cheese, processed milk, and oil—totaled \$482,000,000 in 1943.

• **Keyed to Ground Army**—However, a high volume producer of military vehicles—trucks, tanks, and now self-propelled guns—explosives, heavy and light artillery and small arms, and all kinds of ammunition, Canada's manufacturing industries are keyed to ground-army requirements.

This close relationship is something that is worrying Canadian officials and businessmen today. Ground-force requirements already are declining in Allied nations. A sharp reduction in follow successful invasion of the Continent.

ent-knocking the props from under Canadian war schedules.

This certainly lies behind Canada's enhanced preparations for contract termination (BW—Feb. 5'44, p114) and war surplus disposal (BW—Feb. 5'44, p115). And this concern, coupled with the possibility of head-start reconversion, lies behind Canada's interest in postwar foreign trade planning (BW—Feb. 22'44, p120).

To Keep Them in Line—Chief concern in Washington and London, however, is how to keep the war Allies in line during the transition period, preventing one from getting the jump on the others in the race for expanding world markets after the war.

New Agreement

Canada and U. S. revise Hyde Park pact to take care of changed conditions in war programs, dollar exchange.

Don't miss the significance of revision of the Hyde Park Agreement of 1941, announced last week in Washington and Ottawa.

Late in 1940, when Canada's war program was more than a year old, Ottawa's till was bare of American dollars and requirements for U. S. materials were rocketing. Canada imposed the War Exchange Conservation Act, cut off purchases of many U. S. products, and restricted other drains on dollar exchange.

In April, 1941, Prime Minister W. L. Mackenzie King sat down at Hyde Park with President Roosevelt and drafted measures for coordinating U. S. and Canadian war programs. The result: The U. S. agreed to buy a long list of essential war goods in Canada, undertake financing of defense projects in Canada's Northwest, ordered ships in U. S. account for other United States.

By Aug. 31, 1943, Canada's dollar balance was embarrassingly large—\$200,000,000 (BW—Nov. 13'43, p54). Ottawa began to talk of relaxing exchange controls, of buying civilian goods in the U. S. Washington protested.

This week's change in the Hyde Park agreement will mean:

- (1) Washington will immediately bill Canada for unpaid war supplies.
- (2) Canada will pay the U. S. for expenditures in the Northwest (BW—Mar. 11'44, p113).
- (3) The U. S. will cut more Army and Navy contracts in Canada, but not substantially reduce over-all Canadian production to U. S. order.

ADVERTISERS IN THIS ISSUE

Business Week—April 29, 1944

ALLEGHENY LUDLUM STEEL CO.....	92	THE KAYDON ENGINEERING CORP.....	101
Agency—Walker & Downing		Agency—Klau-Van Pietersom-Dunlap Assoc., Inc.	
ALUMINUM ORE CO.....	96	GEORGE LA MONTE & SON.....	3
Agency—Fuller & Smith & Ross Inc.		Agency—Samuel C. Frost Co., Inc.	
AMERICAN APPRAISAL CO.....	48	G. B. LEWIS CO.....	34
Agency—Klau-Van Pietersom-Dunlap Assoc., Inc.		Agency—Bert S. Gittins, Adv.	
AMERICAN CYANAMID CO.....	59	THE LIQUIDOMETER CORP.....	60
Agency—Hazard Advertising Company		Agency—Lucerna Co., Inc.	
THE AMERICAN ROLLING MILL CO.....	38	MANNING, MAXWELL AND MOORE, INC.....	8
Agency—N. W. Ayer & Son, Inc.		Agency—Briggs & Varley, Inc.	
AMPRO CORP.....	63	MARSH STENCIL MACHINE CO.....	116
Agency—Irring J. Rosenbloom Adv. Agency		Agency—Paden	
ANACONDA WIRE & CABLE CO.....	109	MARYLAND CASUALTY CO.....	23
Agency—Ivey & Ellington, Inc.		Agency—J. M. Mathes, Inc.	
ANCHOR POST FENCE CO.....	116	McBEE CO.....	39
Agency—Van Sant, Dugdale & Co., Inc.		Agency—L. E. McGivens & Co., Inc.	
ART METAL CONSTRUCTION CO.....	58	MCGRAW-HILL BOOK CO., INC.....	82, 118
Agency—McCann-Erickson, Inc.		MERCO NORDSTROM VALVE CO.....	107
BAKER INDUSTRIAL TRUCK DIVISION OF THE BAKER-RAULING CO.....	76	Agency—The McCarty Co.	
Agency—O. M. Basford Co.		THE MICHAELS ART BRONZE CO., INC.....	53
BALDWIN LOCOMOTIVE WORKS, INC.....	11	Agency—Jaap-Orr Co.	
Agency—Ketchum, MacLeod & Grove, Inc.		MONSANTO CHEMICAL CO.....	4th Cover
BARRETT-CRAVENS CO.....	49	Agency—Gardner Advertising Co.	
Agency—The Buchen Co.		PHILIP MORRIS & CO. LTD., INC.....	34
BELL & HOWELL CO.....	85	Agency—The Albert Woodley Co.	
Agency—Hendri, Hurst & McDonald, Inc.		THE NATIONAL CITY BANK OF CLEVELAND.....	84
BIRDSBORO STEEL FOUNDRY & MACHINE CO.....	90	Agency—McCann-Erickson, Inc.	
Agency—Beaumont, Heller & Sperling, Inc.		NEKOOSA EDWARDS PAPER CO.....	8
BLACK & DECKER ELECTRIC CO.....	107	Agency—The Cramer-Kraesselt Co.	
Agency—The Bayless-Kerr Co.		NORTHERN PACIFIC RAILWAY CO.....	46
BLACKHAWK MFG. CO.....	40	Agency—Batten, Barton, Durstine & Osborn, Inc.	
Agency—Klau-Van Pietersom-Dunlap Assoc., Inc.		NORTON CO.....	49
THE BLUE NETWORK.....	51	Agency—John W. Odlin Co., Inc.	
Agency—Geyer, Cornell & Newell, Inc.		OLIVER IRON & STEEL CORP.....	24
BOEING AIRPLANE CO.....	27	Agency—Walker & Downing	
Agency—N. W. Ayer & Son, Inc.		OREGON JOURNAL.....	48
CARBOLOY, INC.....	73	Agency—Short & Baum, Advertising	
CLAYTON MFG. CO.....	44	OSALID PRODUCTS DIVISION GENERAL ANILINE & FILM CORP.....	115
Agency—West-Margolis, Inc.		Agency—Young & Rubicam, Inc.	
CLEAVER-BROOKS CO.....	89	PENN ELECTRIC SWITCH CO.....	6
Agency—Klau-Van Pietersom-Dunlap Assoc., Inc.		Agency—Lampert, Fox, Prell & Dolk, Inc.	
CONTAINER CORP. OF AMERICA.....	62	THE PFAUDLER CO.....	36
Agency—N. W. Ayer & Son, Inc.		Agency—Charles L. Humrell & Co.	
CRANE CO.....	81	PLUSWOOD, INC.....	100
Agency—The Buchen Co.		Agency—Charles Meissner & Assoc., Inc.	
CUTLER-HAMMER, INC.....	12	PLYMOUTH CORDAGE CO.....	68
Agency—Kirkmister-Drew		Agency—Fuller & Smith & Ross Inc.	
A. B. DICK CO.....	105	POMONA PUMP DIVISION JOSHUA HENDY IRON WORKS.....	47
Agency—Leo Burnett Co., Inc.		Agency—Dorner Graham Eastman, Adv.	
DISTILLATION PRODUCTS, INC.....	80	PULLMAN-STANDARD CAR MANUFACTURING CO.....	99
Agency—Knox, Reeves Advertising, Inc.		Agency—Charles Daniel Frey Co.	
DRESSER INDUSTRIES.....	91	REMINGTON RAND, INC.....	57
Agency—Fuller & Smith & Ross Inc.		Agency—Leeford Adv. Agency, Inc.	
EDISON STORAGE BATTERY DIVISION THOMAS A. EDISON, INC.....	2	ROHM & HAAS CO.....	29
Agency—O. S. Tyson Co., Inc.		Agency—Newell-Emmett Co.	
EITEL-MCCULLOUGH, INC.....	71	ROLLWAY BEARING CO.....	87
Agency—L. C. Cole, Adv.		Agency—Barlow Adv. Agency, Inc.	
EMERSON ELECTRIC MFG. CO.....	35	SKILSAW, INC.....	119
Agency—Antefanger Adv. Agency, Inc.		Agency—Earle Ludgin Co.	
FEDERAL ELECTRIC CO., INC.....	110	THE W. W. SLY MFG. CO.....	98
Agency—J. R. Hamilton Adv. Agency, Inc.		Agency—The Bayless-Kerr Co.	
FIRESTONE TIRE & RUBBER CO.....	60, 61	L. C. SMITH & CORONA TYPEWRITERS, INC.....	41
Agency—Grey Adv. Agency, Inc.		Agency—Newell-Emmett Co.	
FRANKFORD DISTILLERIES, INC.....	3rd Cover	THE SPERRY CORP.....	77
Agency—Young & Rubicam, Inc.		Agency—Young & Rubicam, Inc.	
GAYLORD CONTAINER CORP.....	52	STROMBERG-CARLSON CO.....	95
Agency—Oakleigh B. French & Assoc.		Agency—McCann-Erickson, Inc.	
GENERAL ELECTRIC CO.....	14	TAFT-PEIRCE MFG. CO.....	31
Agency—Leighton & Nelson		Agency—Sutherland-Abbott	
THE B. F. GOODRICH CO.....	1	TAYLOR INSTRUMENT COS.....	33
Agency—The Griswold-Eshleman Co.		Agency—Batten, Barton, Durstine & Osborn, Inc.	
GRAHAM TRANSMISSIONS, INC.....	26	TWIN DISC CLUTCH CO.....	106
Agency—Bert S. Gittins, Adv.		Agency—Spencer W. Curless, Inc.	
GRAYBAR ELECTRIC CO.....	102	UNDERWOOD ELLIOTT FISHER CO.....	83
GRINNELL CO., INC.....	74	Agency—Marshall & Pratt Company	
Agency—Horton-Noyes Co.		UNION METAL MFG. CO.....	28
HARTFORD FIRE INSURANCE & HARTFORD ACCIDENT & INDEMNITY CO.....	79	Agency—The Griswold-Eshleman Co.	
Agency—Newell-Emmett Co.		UNITED STATES STEEL CORP.....	37
E. F. HOUGHTON & CO.....	93	Agency—Batten, Barton, Durstine & Osborn, Inc.	
HYATT BEARINGS DIVISION GENERAL MOTORS CORP.....	75	WAGNER ELECTRIC CO.....	72
Agency—Campbell-Ewald Co., Inc., Eastern Div.		Agency—Arthur R. Moege, Inc.	
INDUSTRIAL TAPE CORP.....	45	WARNER & SWASEY CO.....	2nd Cover
Agency—Kenyon & Eckhardt, Inc.		Agency—The Griswold-Eshleman Co.	
INDUSTRIAL TRUCK STATISTICAL ASSN.....	97	THE WATSON-STILLMAN CO.....	70
Agency—Reinecke, Ellis, Younggreen & Finn, Inc.		Agency—O. S. Tyson & Co., Inc.	
JOHN INGLIS CO., LTD.....	100	WEBSTER ELECTRIC CO.....	103
Agency—J. J. Gibbons, Ltd.		Agency—J. R. Hamilton Adv. Agency	
JENKINS BROS.....	67	WESTINGHOUSE ELECTRIC ELEVATOR CO.....	55
Agency—Horton-Noyes Co.		Agency—Wm. B. Remington, Inc.	
JOHNSON & HIGGINS.....	25	YORK CORP.....	4
Agency—Doremus & Co.		Agency—J. M. Mathes, Inc.	
S. C. JOHNSON & SON, INC.....	30	YOUNGSTOWN SHEET & TUBE CO.....	43
Agency—Needham, Louis & Broby, Inc.		Agency—The Griswold-Eshleman Co.	
JONES & LAMSON MACHINE CO.....	65		
Agency—Henry A. Loudon Adv. Agency			

IF YOU-- had a chance

to step into a better job

WOULD YOU BE PREPARED?

These are times of change in the business world. New jobs are opening up, and they must be filled, and filled quickly—with men who are able.



Here are books giving quick access to fundamentals and practices that promote executive efficiency to help you prepare yourself so that when your opportunity comes, you will be ready.

This is a business executive's library

THE books in it cover the elements and methods of management most needed in executive approach to business. Use it for immediate help in specific problems, small and large—also, to master the patterns underlying methods, to get the knowledge of all business you need quickly now.

The need for this sort of help, and the most practical means of meeting it, have been the only standards by which Milton Wright has sifted and chosen material and organized it, in this Library. From it you can get the guideposts you need in tackling new duties, in assuming executive responsibilities, in knowing the job and getting it done.

The LIBRARY OF BUSINESS MANAGEMENT

6 vols., 1973 pages

● How to organize a single department or a whole business . . . plan and control its workings . . . provide and maintain the most happy and efficient personnel.

● How to keep the life-blood flowing in business . . . where and how to get money . . . how to utilize it . . . how to keep the business in sound financial condition.

● How to reduce credit losses . . . handle the important elements of credit policy . . . modernize your collection system . . . write better letters . . .

put the company's correspondence on a more economical and effective basis.

● How to lay out a workable approach to marketing methods . . . improve the sales organization . . . develop promotion ideas . . . stimulate results in any of the several avenues of marketing.

● How to do more work yourself . . . conserve and direct your energies . . . and how to handle scores of problems, small and large, detailed aspects of these important fields of business activity.

Low Price

10 Days' Examination Easy Terms

Under our offer get all six books on approval. Read them, make comparisons, look up specific problems, use them as you would after purchase. If this 10-day test shows value, pay in small installments, while you use the books. Send the coupon today.

McGraw-Hill Book Co., 330 W. 42nd St., N. Y. C. 18
Send me Milton Wright's LIBRARY OF BUSINESS MANAGEMENT, 6 volumes, for 10 days' examination on approval. In 10 days I will send \$3.00, and \$3.00 monthly until \$15.00 is paid, or return the books postpaid. (To insure prompt shipment write plainly and fill in all lines.)

Name
Address
City and State
Position
Company BW 4-29-44

THE MARKETS

(FINANCE SECTION—PAGE 78)

Following the sell-off on the New York Stock Exchange early last week, which was so severe that it produced the sharpest daily price spill on the Big Board since the Mussolini rollback of market values last summer, Wall Street's bullish elements (although much in the minority lately) did manage to stage something of a rally.

● **Didn't Last Long**—The subsequent rally, however, if it can be called such, soon proved a short-lived affair of little consequence, attributed by many in the Street to technical reasons only.

In fact, trading activity on the only day that this temporary strength was evidenced sank to levels of but half those reported during the previous daily periods of price weakness.

What gains were registered then have since been more than washed out by the effects on prices of the preponderance of selling orders disclosed in most of the subsequent Big Board daily trading sessions.

● **Still Jittery**—As a result, stock price averages are now all but back at their levels of a year ago when the 1942-1943 bull market was in full swing and still had three months of kick left in it. And many of the individual stocks which not so long ago looked so attractive for purchase, though still above the lows registered earlier this year, are currently available at levels of as much as 15% to 25% below the highs they reached in the abortive March rally.

It is thus evident that nothing in the news from Europe over the last week has done anything to ease the case of "invasion jitters" which has been gradually

spreading out into most Street quarters.

Some market observers, however, are coming to believe that perhaps the nervousness over the coming invasion of Europe is not entirely the cause of the recent sharp drop in buying enthusiasm.

● **Other Factors**—In fact, some are now attributing at least part of the current pessimism to uncertainties created by the failure of the March rally to break through last year's highs despite its early momentum; the prospects that industrial activity will show a drop in the last half of 1944; and beliefs that full 1944 profits, though many satisfactory first-quarter reports are coming in, will show a shrinkage from 1943 levels.

● **Doubt As to Scope**—Few Street statisticians currently appear to have any fixed ideas as to the ultimate scope of the present downtrend. Neither do even the most "invasion-conscious" deny the possibility of other occasions when the market will show some rallying power.

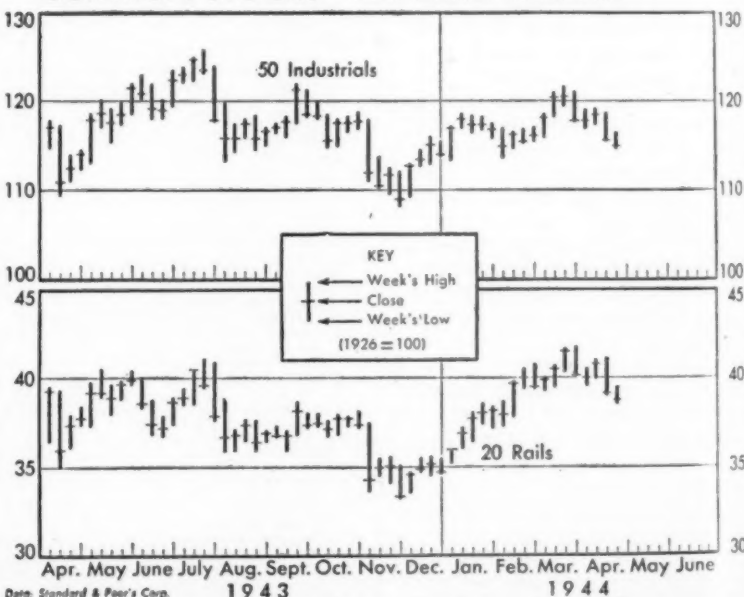
Nevertheless, most of the financial district definitely can't see any signs yet that the persistent drift to lower levels has run its appointed course.

Security Price Averages

	This Week	Week Ago	Month Ago	Year Ago
Stocks				
Industrial . . .	115.1	115.6	117.8	114.2
Railroad . . .	38.8	39.1	40.1	37.8
Utility	49.9	50.0	51.5	45.9
Bonds				
Industrial . . .	121.3	121.1	120.4	116.6
Railroad . . .	105.2	105.6	104.8	98.2
Utility	116.6	116.5	116.0	113.6

Data: Standard & Poor's Corp.

COMMON STOCKS—A WEEKLY RECORD



Data: Standard & Poor's Corp.

THE TRADING POST

Small Business"

A couple of weeks ago I cited here the case of Bethlehem Steel to illustrate the function of management in the industrial economy. I suggested that thousands of small enterprises had a part in that function no less important than that of the big ones. In offering that suggestion, I was aware of the difference of opinion that prevails as to the possibilities of what is called "small business." Some see "small business" at all in the manufacturing picture. "Small business," they say, "Oh yes, you mean retailers and service businesses. Of course, you can't expect the small manufacturing business to survive in competition with the big companies. It isn't economic, you know."

On the other side, we have those who feel that small business, as such, is tied with a social importance so great that we should subsidize it through government financing or other special privilege. That's another slant. Now there you have a rather disconcerting alternative. Is it true that the small manufacturing enterprise is doomed by the superior efficiency of great industrial organizations unless we deliberately make it support an object of social concern? Maybe so. But the case has yet to be proved.

* * *

I have just been reading a thin book published in the "Business Life in America Series" of Columbia University Press. It is written by Alfred Lief and is entitled "Camillus—The Story of American Small Business."

Now I've heard the old wheeze about the small business not making a summer. And I know from experience the danger of generalizing from one case. Maybe the Camillus Cutlery story isn't typical. Maybe it can't be duplicated. But at least it is provocative, and it may suggest that the position of a small manufacturing enterprise is not so hopeless as some seem to think.

That business was cradled in 1894, a time when Sheffield and Solingen were capitals of the cutlery world. It was in 1902 that one of its customers, Joseph Castor & Bros. of New York, ended their supply of European cutlery cut off by a succession of tariff acts and took over the Camillus plant.

It is not my purpose here to tell in detail how the Castors built up their manufacturing business at Camillus, N. Y. That is informative enough to

warrant an hour of your reading time. Right here I just want to highlight the points of its progress that bear on this matter of small business.

When they took over at Camillus, they had, of course, the outlets they had developed as importers. They had a market. What they needed was production. So they undertook to modernize—even on the small scale of their operations. They used the newest of equipment, which in turn justified their paying good wages for skilled workers.

By 1910, their 200 people produced 75,248 dozen knives. That's about 376 dozen per capita. Through further extension of mass production methods, coupled with a simplification that reduced the number of dies in active use from 1500 to 32, with the bulk of production from only twelve of those, new efficiencies were achieved. By 1930, these had increased the annual per capita output to 579 dozen per capita, an increase of 54%.

In October 1942, with 90% of the output going to the government, production was stepped up to 599,056 dozen knives. For 486 employees, that figures out 1,238 dozen per capita. Note that this achievement has been wrought in a village of about 1,100 people.

* * *

It is not possible to put the finger on any one factor that has been chiefly responsible for the survival and growth of this small-town small business. Resourceful engineering, progressive production methods, modern equipment, shrewd selection of products, aggressive marketing, enlightened human relations, keen sense of social responsibility—each of these has had its part. But all this merely adds up to good management. And the answer may well be that if small business is to succeed, it needs big men to run it. The smaller the business, the sounder the management it must have. And in this case, soundness may be indicated by the fact that during the depression of the thirties, this small business carried on throughout, until in 1935 it found itself producing 30% of the industry's total. By that time, its employment not only had returned to normal but now and then touched a record high.

Once again, let me repeat: The story of Camillus may not prove a thing about small business. But at least it calls for some proof from those who see the small manufacturing business hopelessly out of the race.

W. C.

CUT COSTS...
SAVE TIME on Your
Finishing Jobs

WITH THESE

SKILSAW
TOOLS!

No matter how tough your finishing jobs may be... one of these SKILSAW TOOLS will do the work faster, easier, better... and at lower cost. Why? Because these SKILSAW Sanders and Grinders, like all SKILSAW TOOLS, are powered for top load speed... they're light, compact, better balanced for easier, faster handling... they're quality-built throughout to give trouble-free service longer.

Ask your distributor for a demonstration in your plant. And when planning "tooling-up" for peacetime, call in a Skilsaw Field Engineer... there is no charge, no obligation.

SKILSAW, INC.
Chicago 30

Skilsaw Tools are sold by leading distributors of hardware, automotive and industrial supplies.

SKILSAW
PORTABLE ELECTRIC
TOOLS

MAKE AMERICA'S HANDS
MORE PRODUCTIVE!

THE TREND

PROFITS AND SALES—A LOOK AT THE RECORD

Long-range trends in profits, sales, and the nation's total economic activity are fundamental to the planning of postwar business operations. The charts on page 20 throw new and clearer light on the relations among these factors over the past quarter-century.

The relations they express are simple. Profits before taxes amount to the gross margin on sales less the sum of fixed costs, and mathematical analysis of the 25-year record shows fixed costs of manufacturing corporations to be about five billion dollars, and gross margin roughly one-seventh—or 14¢ to 15¢—of the sales dollar. The important point is that through the years, profits and sales normally hold closely to this relationship. The relationship between factory sales and gross national product (value of all goods and services produced) can't be phrased in quite the same everyday language, but the basic point is again quite evident—that the volume of manufacturing activity is very closely related to that of total economic activity.

• There are, of course, departures from normality. For example, during the war, sales of manufacturing corporations have gone up faster than normal in relation to the gross national product; in 1943, the excess was well over ten billion dollars, or about 10% of sales. All that this means is that war needs for munitions place greater-than-normal emphasis on manufacturing.

More interesting is the fact that the rise in pretax profits has lagged behind what normally would have been realized—by almost two billion dollars last year. This hints at a squeeze between costs and prices (BW—Sep. 18'43, p112); renegotiation pares war producers' margins, and ceiling prices remain arbitrarily fixed even if overtime, inefficiency, or other factors raise labor costs. Profits go up, despite the squeeze on margins—because sales go up; but only the correlation between sales and profits shows how the squeeze is holding the profit rise below normal.

• Immediately, implications arise for postwar thinking. For one thing, manufacturing activity will presumably drop back to its normal relation with total economic activity, as measured by the gross national product. Will profit margins also snap back to normal? If sales dropped to normal, while the gross national product remained unchanged, profits could be held at present levels only if the squeeze on margins were eliminated. But economists generally assume that, even with full employment a couple of years hence, the gross national product in terms of 1943 prices would be lower than now—indicating, from the pattern of normal relations, that sales might drop 25 billions from present levels, but that profits before taxes might drop only some two billions. If activity

dropped to 1939 levels, and profit margins didn't recover, another reading from the charts shows that profits then would be less than half of the actual 1939 figure.

More important, of course, are the implications of a return to normality. A drop in manufacturing activity also means reduced employment at factories. A rise in profit margins would involve a cut in costs, a rise in prices, or both. It may not be possible to do enough of either to restore normal margins quickly, but the tendency in that direction will be strong.

• The whole point is that the 25-year record shows the workings of the economy tend always to restore normality. In 1919, unrestrained demand lifted prices faster than costs, boosting profits above normal relationships to sales; in 1937, prices were slow to rise when wages rose early in the year, and wages were slow to fall when prices fell later in the year; and so profits dipped below normal. But "normal" finally won out, in these and other times.

All of which raises another, longer-range problem. Suppose we had full employment and a capacity gross product; normal pretax profits of manufacturing corporations would then be about 12.5 billion dollars—more than double any peacetime level in the past 25 years. This is a practical instance of a familiar idea—that pretax profits soar when sales rise, once fixed costs are met.

• Now what would become of the 12.5 billions? Here we must make some assumptions about taxes on corporate profits. (In passing, the profits-sales relation lends strong support to the argument that manufacturers can't pass on direct income taxes in higher prices, and so sustain profits.) Suppose, for simplicity, some time after the war that excess-profits levies were ended, that only a straight tax of 20% on profits remained, and that it raised 2.5 billions; then, manufacturing corporations would have profits after taxes of 10 billions. Could that sum, over and above depreciation reserves, be used in investment one way or another? It would have to be employed somehow, directly or indirectly, if the assumed full employment were to be maintained.

Some who are not sanguine about the possibility of outlets for that much investment raise an alternative question: Can manufacturers price their goods more closely? If savings in volume were passed on in lower prices, then the circular flow of income and spending could be maintained without so much investment. The question, in effect, comes to this: Would manufacturers be able to break the relations between sales and profits which the record shows to have been "normal" for 25 years?

The Editors of Business Week

WEEK
AGO



YEAR
AGO

STAR
OF W.
1931



recovered
profits the
ure.
ons of a
activity
A rise in
a rise in
ough of
but the

nows the
normal
es faster
relationships
en wages
all when
ed below
nd other

m. Super
ross prod
orporations
ore than
This is
x profits

s? Here
on cor
on lends
ers can't
d so sus
ne after
t only a
that it
orations
uld that
used in
e to be
assumed

bility of
ernative
s more
a lower
pending
nt. The
ictures
profits
for 25

Week
29, 1944

BUSINESS
WEEK
INDEX